

## BGE Environmental, LLC.

Wetland Consulting and Land Use Planning

# A2Z ENTERPRISE WETLAND DELINEATION

Prepared for: Dan Morrison

BGE10\_450 APRIL 2010

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## A2Z ENTERPRISE WETLAND DELINEATION

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#### APPENDIX B

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April 19th, 2010

BGE10-450

**Applicant** 

**A2Z Enterprise** 

PO Box 3051

Port Angeles, WA 98362

Project Location

**Edgewood Drive** 

Port Angeles, Washington

Tax Account

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12, 30N, 07W W.M.

BGE Environmental, LLC. performed a comprehensive wetland determination on a portion of a 90.45-acre parcel located north of Edgewood Drive and west of Critchfield Road (Figure 1). The subject parcel is fragmented into different land uses which include roads, fruit orchards, residential dwelling and out building, agricultural fields, Dry Creek and forest. The wetland determination did not encompass the entire parcel. Rather and area of investigation was defined prior to implementation of the comprehensive determination methodology. Areas determined to be wetland that extended outside of the area investigation were further documented if the wetland area was with agricultural field, the focus of this study. The findings of the comprehensive determination are presented in this report. The investigation area is shown in Figure 2.

### **BACKGROUND INFORMATION**

**Existing Conditions** 

The subject parcel is roughly rectangular in shape. Immediately north of the subject parcel is a single-family residence with similar open and forested areas. Land to the west remains undeveloped. The eastern boundary is defined by Dry Creek while land use in the south is rural developments.

The investigation area is generally flat in topography with a slight downward grade to the north corresponding to the natural flow of Dry Creek (Figure 3). The long term agricultural practices on the property have varied in size over time. However, the investigation area is known to be long term agricultural. Thus, the investigation area has been subject to historic agricultural practices which include plowing, discing, seeding and harvesting. These land use activities manipulate the surface topography on a macro and micro scale over the course of decades. Current conditions include small depressions, imprinted tracks, remnant traverses or harvest patterns, cleared and scarped surface layers.



#### Watershed

The subject parcel lies within the Dry Creek Watershed, part of the Urban Independent River system which includes Lees, Ennis, Peabody, Valley and Tumwater Creeks. The creek lies within the Port Angeles urban area and has been highly modified to accommodate urban and commercial development in Port Angeles. Salmon stocks within this watershed are depressed or extirpated. Dry Creek specifically does not have a distinct identified salmon stock and when present the numbers are very low. Dry Creek is a state listed 303D stream due to water temperatures and the major limiting factors include blockages, stormwater, lack of large wood, riparian and floodplain constrictions, along with loss of estuarine functions. It has little potential for salmonid production even with habitat restoration.

The headwaters of this watershed lie within the foothills of the Olympic Mountains. Many small headwater streams contribute to the watershed and the majority of these streams are within the boundaries of DNR (Washington Department of Natural Resources) land use. Long-term forest practices are the historic and current use. The stream bottoms out to the north along a terrace that includes the subject property. Surrounding land use is rural residential. Historically, Dry Creek meandered through the William R Fairchild International Airport property but was rerouted along the perimeter of the property to accommodate the runway. In addition, a small stream with associated wetlands east of Dry Creek are captured at the southern boundary of the airport and routed to Dry Creek through a ditch that runs the extent of the airport to its convergence with the rerouted channel of Dry Creek. As the stream continues to the north its buffer become larger, remains forested and well intact while the surrounding land use remains as rural, singlefamily use.

**Aerial Maps** 

Aerials of the subject property were evaluated for interpretation of any repetitive wetland signatures, a standard practice for delineation. Aerial data reviewed included historic flights from the City of Port Angeles database and GOOGLE/earth©. Human activity on-site has altered wetland indicators and aerial comparisons are particularly usefull in identifying wetness signatures under these conditions. Consideration to seasonal cycles, long-term trends of multi-year droughts alternating with years of higher-than-average rainfall certainly impose a standard deviation to the accuracy of the interpretations. Aerials reviewed date back to 1965. The manipulation of the surface by normal agricultural activities revealed alternating crop patterns, rotational plantings, reforestation of harvest areas, patches of greener vegetation during dry periods warranting further investigation for wetland determination. All of these signatures were different between years; 1965, 1985 and 1995 (Appendix A). Because the site is compromised from the historic land use, emphasis on the aerials, as in any delineation, was used as a tool only and should not be weighted more heavily than on the ground conditions. Therefore the investigation was conducted using comprehensive determination methodology.



Soil Survey

The soil survey of Clallam County indicates two onsite soil types. The first soil defines the westernmost portion of the investigation area and is identified as Clallam gravelly sandy loam, 0 to 15 percent slopes. This moderately deep, moderately well drained soil is on hills and formed in compact glacial till. Permeability is moderate to the compact glacial till and very slow through it. Water is typically perched above the compact glacial till from January through April.

If this unit is used for hay and pasture, the main limitations are steepness of slope and droughtiness. Proper stocking rates, pasture rotation and restricted grazing during wet periods help to keep the pasture in good condition. Water capacity is low and summer irrigation is needed for maximum production of most crops. Irrigation water needs to be applied carefully to prevent the buildup of a high water table.

If used for home site development, the main limitation is wetness. Excavation for roads and buildings increases the risk of erosion. Septic tank absorption is limited by wetness and depth to glacial till, therefore onsite sewage disposal systems often fail to function properly during periods of high rainfall. Use of heavy equipment during construction compacts the soil and reduces permeability, particularly during periods when the soil moisture content is high.

Bellingham silty clay loam defines the eastern portion of the investigation area and is a very deep, poorly drained soil is in basins on low terraces. Often found in this series are areas of sand, gravel and muck (Cassolary, McKenna, Mukilteo, and Puget soils). Permeability and runoff is slow and the available water capacity is high. Effective rooting depth is limited by a seasonal high water table that is at the surface to a depth of 1 foot below the surface from November through June.

When pastureland and hay land are used in this soil series, the main limitation is wetness and restricted permeability. Grazing when the soil is wet results in compaction of the surface layer and poor tilth. Drainage can be used to reduce wetlands if a suitable outlet is available. Use of equipment when the soil is wet results in compaction, which restricts exploration of moisture and roots.

These defined soils that contribute to seasonally high water table, ponding and compaction are well suited to the conditions observed on the parcel. The aerial map and soil summaries are provided in Appendix A.

**National Wetland Inventory** 

No wetlands are mapped on the NWI for the parcel as a whole, specifically none within the investigation area as well. Off-site wetlands are shown to the north as PFO1C, a Freshwater Forested/Shrub system approximately 7-acres in size. In addition, to the east there lies another system identified as PEM1A Freshwater Emergent Wetland 8.3-acres in size. This wetland was identified and a determination concluded by BGE Environmental, LLC in June 2006. See Appendix A for NWI mapping.



#### **Local Resources**

The City of Port Angeles critical area maps indicate that the majority of the interior of this parcel is wetland. Public disclosure request for the documentation of this determination resulted in no such quantification. Personal communications with Scott Johns, city planner, stated that during the development of the Critical Area Code for the City in the early 1990's, a contracted biologist provided a "windshield" assessment of wetlands within the urban growth area. Mr. Johns stated that no property was entered or determination quantified under to contracted services. The City was seeking broad brush analysis for the resources currently being considered under State mandates. Mr. Johns also stated that the determination of the parcels wetland was likely conducted in the wet season, since the property is observed and "well known" to pond in the winter.

The parcel was delineated once before in June 2006 by Alkai Consultants, LLC.

#### **State Resources**

No natural heritage features associated with wetlands are identified with the resources on-site or within the vicinity of the parcel<sup>1</sup>. Likewise, Dry Creek specifically does not have a distinct identified salmon stock and when present the numbers are very low.

#### WETLAND DELINEATION AND ASSESSMENT

**Analysis of Atypical Situation** 

Wetlands identified on the subject property were determined using the methodology for a Comprehensive Determination.<sup>2</sup> This methodology was chosen because of the sites complexity and historically altered parameters. As a result of the long term agricultural practices on the parcel, specifically within the investigation area, any one, if not all three parameters (vegetation, soils and water) may be disputed. Rigorous documentation is warranted and has been requested (ACOE lettered correspondence) for the determination within.

Vegetation within the investigation area is seeded grasses and forbes. This plant community has been managed for over 80 years in which the landscape has incurred periodic disking or plowing, planting of native and non-native species, irrigation and/or the use of herbicides. These factors alone deem the vegetation parameter as problematic. However, the investigation area has not been plowed or seeded for over seven years, removing the strong influence of a managed agricultural community. The majority of species present are recognized as native<sup>3</sup> yet introduced. The on-site species are not considered noxious and only one of the documented species is listed as a Class B noxious weed<sup>4</sup>, *Hypochaeiris radicata*.

<sup>1</sup> http://www.dnr.wa.gov/ResearchScience/Topics/NaturalHeritage/Pages/amp\_nh.aspx

<sup>&</sup>lt;sup>2</sup> Wetland Training Institute, Inc. 1991. Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual. WTI 91-2, 133 pp.

<sup>3</sup> http://www.wnps.org/plant\_lists/counties/clallum/clallum\_county.htm/

<sup>4</sup> http://www.nwcb.wa.gov/index.htm



Therefore the lack of recent disturbance to the vegetation community provides a descent indication of areas that support hydrophytic communities. Temporal shifts in vegetation dominance have been observed and documented on a seasonal basis. Although the vegetation community is not typical for wetland in the region, these communities provide definition of areas than can and do support wetland conditions. Therefore the vegetation does provide a reliable fingerprint for hydrophyte evaluations.

Soils are equally compromised from agricultural practices, particularly disking and plowing. The site is observed as ponded, in areas, during the wet season with hardened, compacted soils in the dry season. Past wetland determinations have documented hydric soils and non-hydric soil conditions that tend to checkerboard throughout the parcel. Reduced soils are clearly identified in areas that have had long term, consistent saturation. Like the vegetation community's stability, the soils in the investigation area have not been turned or disturbed by plowing in over seven years. In the absence of any recent surface disturbances, short of tractor or vehicular tracks, persistent hydric soil features from the surface to the prevalent clay layer were easily documented.

The seasonal presence of water on the parcel and within the investigation area is "known" and is as historic as the current land use. Set on a geological plateau off the Olympic Mountains the parcel services hydrologic transfer of both surface water and ground water to the Strait of Juan De Fuca during the wet season. Underlain with clay at thirteen to eighteen inches, the parcel is a conduit for these waters until dry weather sets in. Alterations to the hydrology from the agricultural practices include drain tiles that are observed as a greener strip from the south to north. The inlet of this tile system is assumed to originate at an individual rose bush which has a hole at its base. During heavy rain events surface waters drain towards this hole and it has never be observed as full or overflowing.

The site was visited during a highly improbable rain event (50 to 100-year storm) in November 2009. Four days prior to the site visit, the Port Angeles area received 5.74-inches of rain which is more precipitation in four days than the normal monthly records of 4.4-inches. The observed surface flows were consistent with the theory of the south to north drainage throughout the property. In fact, a surface water conveyance noticeable on a 1995 aerial was observed on-site. In addition, uncapped artesian wells were boiling from the ground. Areas of the parcel which remain saturated, at best, during the dry season were noted as ponded or supersaturated at the surface. This recent storm event emphasized that the landscape position of this site to the adjacent foothills of the Olympic Mountains, coupled with the shallow clay layer, transports quite a bit of ground water during the winter months. In addition, due to the steady gradual slope of the landscape, the impervious clay layer and shallow surface soils, the water is detained on-site for a brief period of time. Once the source is exhausted so is the water on-site. Emphasis shall again be stated on the fact that the surface has not been subjected to disking or plowing which would result in land leveling. This allows for the identification of surface water flows on the



parcel during wet season and storm events, however, these established conveyances are the tell-tell story of storm events and not necessarily the right of passage to wetland jurisdiction. Completion of the determination must consider wetland vegetation and/or hydric soils. Although drain tiles may have been used historically to expedite the removal of stormwater from the site, the landscape hydrology is not problematic from these past actions. Its disputability stems from limited storage capacity as an emergent, managed landscape and the cyclical hydrological regime from wet to dry.

With an established flashy hydrology on and within a seasonal basis, the wetland determination was scheduled early March at the very beginning of the growing season when hydrology would be present and not yet receding in its normal procession towards summer. In order to minimize false-positive and false-negative determinations for hydrology, precipitation records were reviewed. The records indicate that although December, January and February were drier than normal, receiving a deviation less than average, the wet season October to March had an excess deviate, or slightly higher than average precipitation. Wet weather variables show that winter precipitation was 1.71-inches above normal with a high standard error within months. March precipitation was only slightly lower by 0.04-inches. The following table summarizes the recorded precipitation data<sup>5</sup> from October 2009 to March 2010.

MONTH	ACTUAL	NORMAL	DEPARTURE
October	5.28	2.46	+2.82
November	10.69	4.4	+6.29
December	1.17	4.4	-3.23
January	2.32	3.86	-1.54
February	0.20	2.79	-2.59
March	2.08	2.12	-0.04
TOTAL	21.74	20.03	1.71

From the analysis and long term trend observations aforementioned above, the site was considered to exist under normal environmental conditions or specifically not atypical for precipitation. All three parameters are present, consistent in trend and quantifiable for jurisdiction.

## **Determination of Methodology**

To proceed under a comprehensive determination a baseline was established parallel to dry creek along the eastern boundary of the investigation area. The baseline extended a distance of 775-feet north to south. The baseline was divided into three segments of roughly 260-feet and labeled at I, II and III, Figure 4. Based on the western boundary limitation of the investigation area (which is defined by the existing tree line) transects within segments ranged from 570-feet to 325-feet in

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length. Based on transect lengths less than 1,000-feet, observation points along the transect may range between 2-10 with interval distances of 100-feet between points.

Statistically, only one transect per segment is necessary for a comprehensive determination. Because soils are known to reflect checkerboard character in the landscape and that equally hydrology could be just as evasive or prominent, two transects per segment were established. The first was not random, set at distance 0 for each segment I, II and III ("A" transects). The second transect was positioned using a random number table and labeled as "B" transects, Figure 4. Observation points were taken along the transects at approximated intervals between 80 to 10-feet.

Data from each observation point was documented using the US Army Corps of Engineers Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. ERDC/EL TR-08-13. April 2008 and the Washington Department of Ecology Washington State Wetland Identification and Delineation Manual (1997). Wetland determinations were made for all transect observation points. The wetland determination was processed using the 'Wetland Determination Data Form" from the aforementioned Corps manual. Upon approaching each observation point, observable changes in vegetation or topography were typically negligible along transects. Observation points required assessment and analysis on-site for conclusive evidence in the determination at each point. Once documented and flagged the next observation point was recorded, assessed and determination concluded. When two adjacent observation points were found to be different, one wetland and one non-wetland the area was alternately flagged for further investigation and determination of wetland boundary. Transect data, 81 observation points, was documented and recorded prior to returning to the areas that were documented as wetland.

In the areas found to have wetland criteria, further sample points were taken, off transect, for the assessment and documentation of findings to accurately delineate the wetland boundary. The procedure consisted of traversing the area between the transect observation points and making additional wetland determinations to locate the wetland boundary at sufficiently close intervals (not necessarily standard intervals) so that the area can be surveyed. Repetiously, the surrounding area was visually assessed for changes in vegetation or topography. More than one hole may have been dug where these changes were absent or very subtle. However, data within all holes were not necessarily recorded, yet left open, temporarily, for statutory review of the findings of this report. Sample points were labeled to depict the obvious and documented change in vegetation, soils, hydrology or topography. For ease of delineation and line interpretation the additional observation points were labeled SP and K for wetland and non-wetland respectively. The distance between these points varied on sample point conditions and ranged from 10 to 30-feet throughout the investigation area. When deemed appropriate, observation points along transects were used to document the non-wetland from the wetland or viceversa.



This analysis concluded three wetlands amongst 80 sample points, within 41 transect observation points (121 documented plots) along 6 transects. Additional pits were dig and observed for concurrence and/or deviations, but not recorded as deemed repetitive or consistent with adjacent findings. Transect observation points and all sample points were surveyed and provide as exhibits, provided at the end of this report as Wetland Location Exhibits. Sheets 1 through 4.

#### Wetlands

Wetland A (flagged WA) was the first wetland targeted from sample points IA5 and IA6. Upon proceeding with the delineation, the wetland moved out of the investigation area towards the south (sample points SP6 to SP1). This area is equally agricultural field bound to the west by a tree line, to the east by the property access road and south by Edgewood Road. The landscape is visually flat amongst small rises towards the east and south. The above ground biomass appeared to be slightly higher, or taller grasses, in select areas of the wetlands landscape. Where it was observed to appear greener, density or absolute percent cover was greater in magnitude leaving little to no bare ground within the sampled plot. Vegetation coverage was dominated by Holcus lanatus, Ranaunculus spp, Festuca rubra, Dactylis glomerata and Trifolium spp. Dominated by Facultative species this area of the wetland had a shallow soil profile to thirteen inches prior to the clay layer (10YR5/2+, 10YR5/6 (30%)). Soils in the upper profile were a dark grayish brown with very rare to frequent yet always striking mottles (10YR3/2 or 10YR4/2 with mottles 10yr4/6 (1%) and 10YR4/4 (15%)). Hydrology included areas of shallow yet inundated surface depressions but could also be dry at the surface. The typical water table stabilized at 8-inches yet ranged from 3 to 10-inches in depth.

Because Wetland A extended further to the south, hugging the western tree line, additional transect like observation points were conducted eastward towards the property access road. Recorded observation points well outside of the sampling points for the wetland delineation include K6 and K7. Additional sampling points were dug and judged as non-wetland, equivalent to the aforementioned points. These points were not recorded but left open for statutory approval. These additional points allowed us to determined with greater accuracy the non-wetland determination in this portion of the property outside of the investigation area.

The transition from wetland to non-wetland (sample points K1 to K5) along this eastern extent of Wetland A eliminated the Facultative dominance, although most of these species were still present but dominate less than 20-percent of the plot. Vegetation diversity shifted towards upland species such as Dactylis glomeratea, Daucus carota, Leucanthemum vulgare and Plantago lanceolata. These non-wetland areas revealed soils with uniform profiles of 10YR4/4 down to 16-inches prior to the clay layer. In some cases soils were only slightly lighter than the recorded hydric soils at 10YR3/3 or 10YR 4/3 with or without mottling. In these sample pits water was absent from the upper 12-inches and as stated above shifted away from a hydrophyte dominate community. The range of observed water table fluctuations on



this eastern non-wetland portion of the property ranged from 12-inches to 23-inches in depth.

The western boundary of Wetland A was determined through the exploration of additional sample points off transect (SP9 to SP11). This side of the line was established with a heavier basis of non-wetland sample points (K13, K14, K15, K56, K57, K33, K30, K28, K27, K20 to K22) than wetland. This analysis was driven by an observable change in vegetation from wetland to non-wetland. The most abundant species coverage in the non-wetland area included Leucanthemum vulgre, Daucus carota, Dactylis glomerata and some Festuca rubra. Upland vegetation above ground coverage typically diminished revealing a greater percentage of bare ground within the sample plot. The shift in vegetation dominance also established a trend from slightly higher stem reach due to the species present. Specifically, the Facultative Upland and Upland indicator species which prevailed are observably, dichotomously different. Soils in this non-wetland area were a light brown with mottles down to 12 to 13-inches before hitting clay (10YR4/4 with 10YR6/6 (15%)). Some sample soils were relatively darker but lacked mottles (10YR3/3 (100%)). Topography was equally an observable change along this western portion of the wetland boundary. Non-wetlands could be noted as slightly elevated when directly compared or quantified to the adjacent sample points. Quite visual is an elevation rise separating Wetland A and B (reference flags WA19 to WA23). water table within the non-wetland sample points was recorded at 10-inches in a few sample pits, but the majority of the documented point locations had no water at all or a stabilized water table between 15 to 22-inches. The wetland does continue into the forested canopy from the north and the east, but this extension of the wetland was not investigated, thus delineated, further into the canopy for the purpose of this report.

Wetland B (Flagged WB) is a small depression in the landscape south and adjacent the topographical rise defined along Wetland A (WA19, WA20, WA21, WA22, WA23). Inundated and dominated by *Ranunculus species*, this wetland extends into the forested canopy. No wetland samples were taken or recorded in the wetland proper. The wetland was flagged according to the non-wetland findings detailed in sample points K24 and K25 where *Leucanthemum vulgare*, *Dactylis glomerata*, *Festuca rubra* and *Holcus lanatus* dominated and shifted between wetland and non-wetland dominance. Hydrology was either present or absent but soils remained non-hydric (10YR4/4) throughout.

Wetland C (Flagged WC) is in the northern reach of the investigation area and extends from the western limits of the investigation area along the forest, along the northern extent of this investigation area, to well beyond the eastern boundary of the investigation area. It originates in the north western corner of the forest extending outward, away from the forest into the cleared agricultural field yet is bound by a topographical hump which is easily discernible to the naked eye and defined from transect observation point IIB7. The wetland boundary line traverses and mimics the forests boundary line, proceeding to the north-northeast through the



investigation area. The determination was best documented by non-wetland sample pits since transect observation points IIB6, IIIA6, IIIB3, IIIB4 and IIIB5 were documented as wetland. Vegetation was dominated by Facultative Wetland species which include *Echinochloa crusgali, Ranunculus spp., Festuca rubra* (FAC) and *Dactylis glomerata*. Soils were dark grayish in color with mottles (10YR 3/2, 10YR5.3 (1%) and 10YR4/6 (3%)) down to 13-inches on average. Hydrology was extended as a high water table from 2 to 11-inches from the surface. Non-wetland sampling points (K34 to K44) deviated to Upland dominated individuals such as *Leacanthemum vulgare, Daucus carota* and *Plantago lanceolata*. Soil profiles extended from 8 to 14-inches prior to transitioning to the clay layer typical. Soil color was consistently dark brown with no mottles, 10YR3/3 or 10YR 4/4. In those sample points K, deemed non-wetland, a high water table was observed between 10 to 16-inches.

The wetland extends to the north until one point (SP14 and WC11) where the boundary turns due south and continues this direction parallel the established investigation area baseline. In this eastern portion of the wetland, sample points were taken well outside the established baseline and investigation area in order to assess the extent of this wetland to the east. The eastern magnitude of the wetland boundary is documented in sample points K52, K53, K54 and K55. The non-wetland transition was once again an Upland and Facultative Upland dominance of Leucanthemum vulgare, Dactylis glomerata, Daucas carota, Taraxacum officionale and Plantago lanceolata in dark brown soils down to 13-inches (10YR3/3). The water table was stable at 10 to 11-inches.

This eastern portion of Wetland C exists perpendicular to the topographic gradient and parallel of Dry Creek. Its southern reach originates and engulfs a ditch in the backyard of the existing residence. This ditch is an overflow conveyance for the drainfield adjacent an old apple orchard. The ditch is deep (2-feet) at its origin, makes a 90-degree turn to the north before it quickly transitions as sheet flow northward. This ditch and its associated surface waters are east of the established baseline, outside of the initial investigation area. The southern-most boundary of Wetland C was not delineated as it originates outside of the investigation area and within the associated use of the residence and orchard. The ditch, albeit sustaining surface water and a slight flow during the time of the determination, is consistently dry in the summer months.

The interior of this southeastern portion of this wetland, Wetland C, which includes the flows extending from the aforementioned ditch and the established baseline, is documented wetland at IIIA1, IIIA2, IIIB1, SP14 to SP19 in addition to SP20 to SP23 along the eastern boundary. This portion of the wetland tended to have a high species diversity of Upland to Facultative Wetland indicator species, where the dominate coverage was *Festuca rubra*, *Hypochaeiris radicata*, *Ranunculus spp.*, *Trifolium spp.* and/or *Echinochloa crusgalli*. Facultative Upland and Upland species while present where not significantly observed for the 50/20 dominance. All of the sample points except one, were a dark grayish brown with infrequent mottles



(10YR3/2, mottles of 10YR4/6, 5/6 or 6/6). This variation of soil color dominated from 8 to 15-inches in depth. The water table stabilized anywhere from 5-inches to 11-inches.

#### Non-Wetland

As rigorously documented under the Comprehensive Determination methodology, the investigation area trended towards being bound by wetlands to the north, south and east. The majority of the western boundary was determined as non-wetland to the forested canopy. Significant differences were recorded in the non-wetland interior in relation to the surrounding wetland areas and ecotone. Of the 40 observation points taken along the six transects, approximately twenty-seven were determined to be non-wetland. Of the twenty-seven non-wetland observation points, seventy percent had no water or a stabilized water table at depth between 14-inches down to 22inches. Hydrology was absent in observation points; IA3, IA4, IB3, IB4, IIB2, IIB3 and IIB4. Non-wetland observation points that contained water but the water table stabilized below 14-inches below the surface was observed at IB1, IB2, IIA1, IIA2, IIA3, IIA4, IIA6, IIA8, IIB1, IIB5, IIB7 and IIIA3. The remaining eight non-wetland observation points saturation or a water table in the upper 12-inches could not bare confirmation for wetland in absence of hydrophyte dominance/prevalence or hydric soils. The non-wetland interior revealed a clay layer at depths recorded from 10 to 14-inches, which is consistent throughout the investigation area for both wetland and non-wetland areas. Soil color in the non-wetland observation points was a light brown with mottles (10YR 4/4, 10YR5/6(3%)) or dark brown with no mottles (10YR3/3(100%)). Vegetation was dominated by Leucanthemum vulgare, Plantago lanceolata, Daucus carota, Trifolium spp., Vicia hirsuta, Taraxacum officionale and Dactylis glomerata. In some cases no species dominance was applicable under the 50/20 dominance test and prevalence failed to confirm a hydrophyte community. Much of the same vegetation is present throughout the investigation area with only a few species occurring once within a sampled plot as vegetation trends out of the dormant season. Some distinct variations in this vegetation could be seen in the landscape but this visual was not confirmed as a distinction between wetland and non-wetland. This determination had to be quantified for each observation point or sample point. Landscape formation with observable rise and fall in the non-wetland areas comparable to the wetland areas was not definable. Small hills or observable changes in elevation were better defined in the wetland section where wetland and non-wetland areas diverged.

#### **SUMMARY**

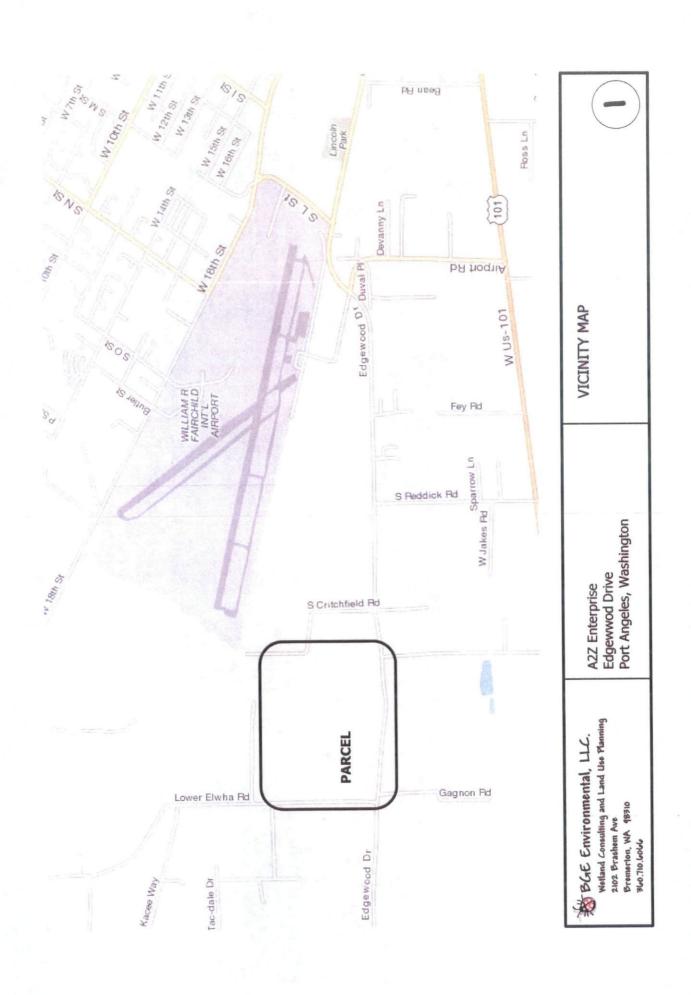
The wetland determination for the investigation area located three wetlands, Wetland A, B and C. The wetland delineation trended outside of the investigation area boundary for Wetlands A and C. All three wetlands are assumed to extend into the binding forest canopy, yet the extent of it jurisdiction was not investigated for the purpose of this report. The driving factors of the wetland jurisdiction were primarily based on the presence of a dominate hydrophyte community and the presence of hydric soils. Where these parameters were strong for wetlands, the

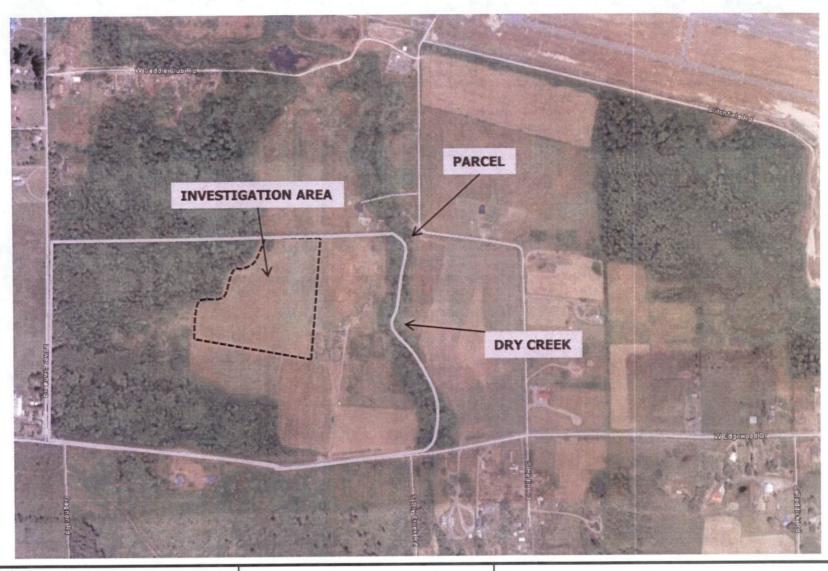


hydrology was present and stable as a high water table. The interior of the wetland proper retained a dense cover of Facultative and Facultative Wetland species. Wetlands tended to have less species diversity than the ecotone and surrounding non-wetland areas. Soils within and amongst the wetland and its ecotone were driven by the presence or absence of mottles. Dark brown soils were consistently present down to approximately 13-inches of the soil profiles. Hydrology was typically present with a stable water table at or within the upper 14-inches where a prominent and consistent clay layer was observed throughout the investigation area.

The interior of the site was deemed non-wetland with no hydrology, light brown soils and a vegetation community that was sparse and Upland dominate. All parameters for wetland jurisdiction were considered a valid representation for the determination despite the long term agricultural activities within the investigation area and the majority of the parcel as a whole. The use of this determination methodology was considered in depth. Based on the lack of alteration to these parameters, specifically vegetation and soils for nearly a decade, the vegetation was considered to be a reliable indicator for areas that could support wetland conditions. Equally the lack of surface disturbance allowed for easy comparison of soil profiles from observation point to observation point.

For the purpose of this report the wetlands within the investigation were rigorously documented for the determination of wetland and non-wetland alike. When the wetland areas were deemed to expand beyond the limits of the investigation area, proper sampling techniques for boundary line establishment were conducted and documented. The sampling procedure was repeated from the Wetland Training Institute, Inc. 1991. *Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual.* WTI 91-2. 133 pp. under Section E for Comprehensive Determinations.





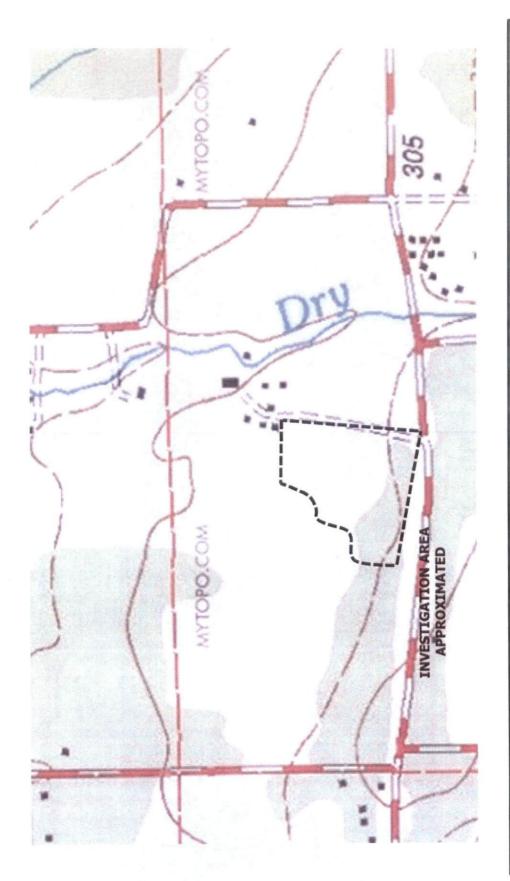


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INVESTIGATION AREA



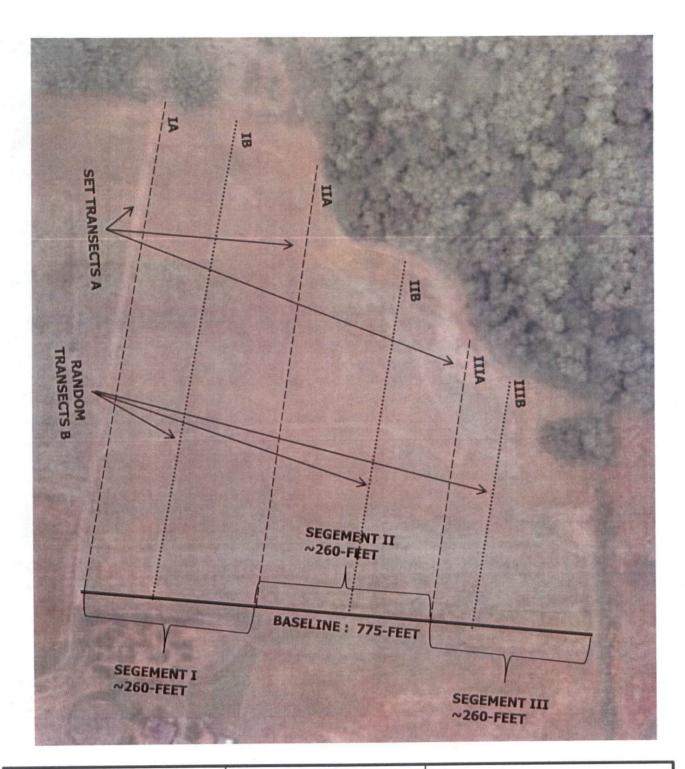
\*\* BGE Environmental, LLC.
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TOPOGRAPHY MAP







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A2Z Enterprise Edgewwod Drive Port Angeles, Washington BASELINE, SEGMENT AND TRANSECT DEVELOPMENT WITHIN INVESTIGATION AREA



## APPENDIX A

## BACKGROUND INFORMATION

Aerial Maps (3) Soil Survey

- Map
- Fact Sheets
  - √ 4-Bellingham silty clay loam
  - ✓ 12-Clallam gravelly sandy loam, o to 15 percent slopes

National Wetland Inventory







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Aerial from 1965





Aerial 1985

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A2Z Enterprise Edgewwod Drive Port Angeles, Washington

Aerial 1995







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Soil Survey



## Clallam County Area, Washington

#### 4-Bellingham silty clay loam

#### Map Unit Setting

Elevation: 10 to 600 feet

Mean annual precipitation: 35 to 60 inches Mean annual air temperature: 50 degrees F

Frost-free period: 150 to 210 days

#### **Map Unit Composition**

Bellingham and similar soils: 85 percent

Minor components: 12 percent

#### Description of Bellingham

#### Setting

Landform: Depressions on terraces

Parent material: Alluvium

#### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 to 11 inches

Frequency of flooding: None Frequency of ponding: None

Available water capacity: Very high (about 12.3 inches)

#### Interpretive groups

Land capability (nonirrigated): 5w

#### Typical profile

0 to 9 inches: Silty clay loam 9 to 60 inches: Silty clay loam

#### **Minor Components**

#### Mckenna

Percent of map unit: 6 percent Landform: Depressions

#### **Puget**

Percent of map unit: 6 percent

Landform: Terraces

### **Data Source Information**

Soil Survey Area: Clallam County Area, Washington

Survey Area Data: Version 6, Sep 22, 2009

#### Clallam County Area, Washington

#### 12—Clailam gravelly sandy loam, 0 to 15 percent slopes

#### Map Unit Setting

Elevation: 40 to 1,800 feet

Mean annual precipitation: 23 inches
Mean annual air temperature: 48 degrees F

Frost-free period: 160 to 200 days

#### Map Unit Composition

Clallam and similar soils: 85 percent Minor components: 3 percent

#### Description of Clallam

#### Setting

Landform: Hillslopes Parent material: Till

#### Properties and qualities

Slope: 0 to 15 percent

Depth to restrictive feature, 20 to 40 inches to dense material

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water in sath Very low

to moderately low 10.00 to 0.06 in mindepth to water table: About 18 to 36 inches

Frequency of flooding: None Frequency of ponding: None

Available Alater capacity: Very low (about 2.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability (nonirrigated): 4s

#### Typical profile

0 to 10 inches: Gravelly sandy loam 10 to 28 inches: Very gravelly sandy loam 28 to 60 inches: Very gravelly sandy loam

#### **Minor Components**

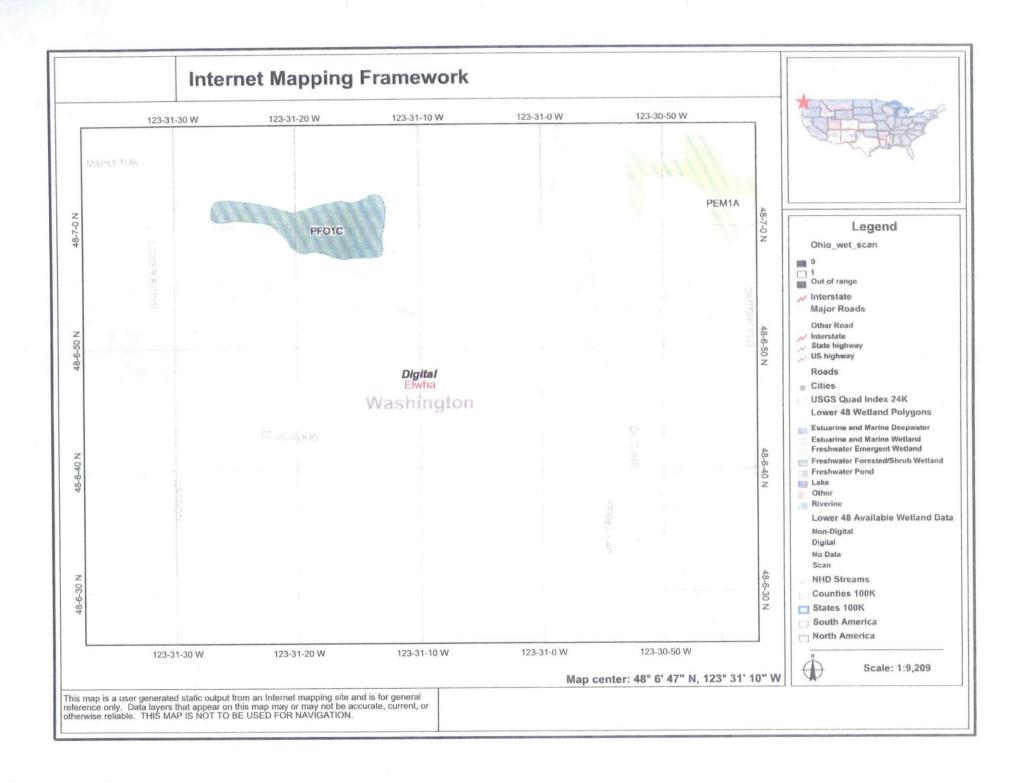
#### Mckenna

Percent of map unit: 3 percent Landform Depressions

#### **Data Source Information**

Soil Survey Area Clallam County Area, Washington Survey Area Data Mers on 8 Sec 11 2009





## APPENDIX B

WETLAND DETERMINATION DATA SHEET



WETLAND DETERMINATION DATA FORM - V	Vestern Mountains, Valleys, and Coast Region
CITY/C	ounty PA CLAUAM Sampling Date 3.18.10
Project/Site	State UT Sampling Point IA
Section Sectio	n, Township, Range.
Landform (hillstope, terrace, etc.). Telebook.	relief (concave, convex, none). TAT Slope (%)
	Long Datum
Soil Map Unil Name Bellingham (4)	NWI classification.
Are climatic / hydrologic conditions on the site typical for this time of year? Y	es No (If no, explain in Remarks )
Are Vegetation 20so 20 Are vegetation significantly distur	bed2) Are Normal Circumstances' present? Yes No X
Are Vegetation Soil, or Hydrology naturally problems	atic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing san	pling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? YesNoNo	Is the Sampled Area within a Wetland? Yes No
Hydric Soil Present?  Wetland Hydrology Present?  Yes No	within a Wetland? Yes No
WATER PRESENCE ONLY	
VEGETATION - Use scientific names of plants.  Absolute Dor	ninant Indicator   Dominance Test worksheet:
Tree Stratum (Piot size) % Cover Spe	ocies? Status Number of Dominant Species
1	
2	Total Number of Dominant Species Across All Strata (B)
3	
= To	Percent of Dominant Species That Are OBL FACW, or FAC (A/B)
Sapling/Shrub Stratum (Plot size:)	Prevalence index worksheet:
1	Total % Cover of Multiply by
2	OBL species x 1 =
4	ACV Species
5.	10 x45 250
	otal Cover FACU species x4 =
Herb Stratum (Plot size	FACU, Column Totals 117 (A) 463 (B)
2 FANUNCULUS SPP 10	FACW Prevalence Index = B/A = 2.9
3 TRIFOURM SPP 10 -	JPL Hydrophytic Vegetation Indicators:
4 VICIA HIRESUTA	FA Dominance Test is >50%
5 HYPOCHACIEIS PADICATA	Prevalence Index is ≤3.0
o arthur	Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
7	Wetland Non-Vascular Plants
9	Problematic Hydrophytic Vegetation (Explain)
10	Indicators of hydric soil and wetland hydrology must
11	be present, unless disturbed or problematic
Woody Vine Stratum (Plot size)	
VYOODY VIIIE SHARSH	Hydrophytic Vegetation
2	Present? Yes No
= 1	
% Bare Ground in Herb Stratum	

SOIL		Sampling Point: TAI
Profile Description: (Describe to	the depth needed to document the indicator or cor	nfirm the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist)	% Color (moist) % Type Loc	<sup>2</sup> Texture Remarks
<del></del>	151176	
1000713	100hole 111	wam wicau
1		
		•
<del></del>		
		:
		1
¹Type. C≃Concentration. D=Depte	tion, RM≃Reduced Matrix, CS=Covered or Coated San	nd Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
	ple to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solis':
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLR	(A 1) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface ( Thick Dark Surface (A12)	(A11) Depleted Matrix (F3) Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (If present):	<u> </u>	
Туре:		
Depth (inches):		Hydric Soil Present? Yes No
Remarks	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
•		
HYDBOLOCY	The same of the sa	
HYDROLOGY		
Wetland Hydrology Indicators:	a conversely about a little analys	Consider Indicator (2 or more consider the
Primary Indicators (minimum of one		Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	<del></del>
High Water Table (A2) Saturation (A3)	Salt Crust (B11)	4A, and 4B) Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Roots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iron Reduction in Tilled Soils	
Surface Soil Cracks (86)	<ul> <li>Stunted or Stressed Plants (D1) (LR</li> </ul>	
Inundation Visible on Aerial Im-	agery (B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave S	Surface (B8)	**
Field Observations:		
Surface Water Present? "Yes	No Depth (inches):	
Water Table Present? Yes	No Depth (inches):	
		Wetland Hydrology Present? Yes X No
(includes capillary (ringe)		3 4 - 4-41
Describe Recorded Data (stream 9	auge, monitoring well, aerial photos, previous inspectio	ons), it available.
Remarks		
		•

#### WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region AUAN Sampling Date 3.18. Project/Site WA\_ Sampling Point: Applicant/Owner. investigator(s) Section Township Range Landform (hillslope, terrace, etc.). Local relief (concave, convex, none). Subregion (LRR) Soil Map Unit Name NWI classification. Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_ \_\_ (If no, explain in Remarks ) significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation \_\_ Are Vegetation \_\_\_\_\_ Soit \_\_\_\_ or Hydrology \_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes is the Sampled Area Νo Hydric Soil Present? within a Wetland? Welland Hydrology Present? Remarks. VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: % Cover Species? Status Tree Stratum (Piot size \_\_\_\_ Number of Dominant Species That Are OBL, FACW, or FAC. Total Number of Dominant Species Across All Strata Percent of Dominant Species \_ = Total Cover (A/B) That Are OBL, FACW, or FAC Sapling/Shrub Stratum (Plot size: \_\_\_\_\_) Prevalence Index worksheet: Multiply by Total % Cover of OBL species **FACW species** FAC species FACU species = Total Cover UPL species Column Totals. Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3.01 \_ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Total Cover Woody Vine Stratum (Plot size Hydrophytic Vegetation Present? \_\_≂ Total Cover % Bare Ground in Herb Stratum \_ Remarks

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1) Sandy Redox (S5) 2 c Histic Epipedon (A2) Stripped Matrix (S6) Rel Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Oth Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wett Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wett Sandy Gleyed Matrix (S4) Redox Depressions (F8)  Hydric Soil Restrictive Layer (If present): Type Depth (inches): Hydric Soil  Hydric Soil Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply) Sext Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Hydrogen Sulfide Odor (C1) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Sampling Point: 1 H2
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion Matrix, CS=Covered or Coated Sand Grains.  Type: C=Concentration, D=Depletion Number or Called Sand Grains.  Type: C=Concentration, CA:  Thick Dark Surface (BB) (except MLRA 1)  Type: C=Concentration, CA:  Type: C=Concentration, CA:  Type: C=Concentration, CA:  Type: C=Concentration, CA:  Type: Called Matrix, CS=Covered or Coated Sand Grains.  Type: Called Matrix, CS=Covered Matrix,	of indicators.)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains.    Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains.   Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains.   Type: C=Concentration, D=Depletion at LRRs, unless otherwise noted.)   Indicate Coaled Sand Grains.   Type: C=Coaled Matrix (F2)   Redox Dark Surface (F3)   Thick Dark Surface (A12)   Redox Dark Surface (F3)   Unless Sandy Gieyed Matrix (S4)   Redox Dark Surface (F7)   Wetter Sandy Gieyed Matrix (S4)   Redox Daressions (F8)   Unless Sandy Gieyed Matrix (S4)   Water-Stained Leaves (B9) (except MLRA   Type: C=Coaled Sand Grains (Type: C=C	0
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   Note	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   Note	11/20 -0
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   Note	MWITT .
Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains.  Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)  Histosol (A2)  Histosol (A2)  Histosol (A2)  Histosol (A2)  Histosol (A3)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Mucky Mineral (F1) (except MLRA 1)  Depleted Below Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Redox Dark Surface (F6)  Indicate Surface (A12)  From Young Company (F7)  Wettand Hydrology Indicators:  Primary Indicators (Iminimum of one required: check all that apply)  Sext Surface Water (A1)  High Water Table (A2)  Salt Crust (B1)  Sadiment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B3)  Surface Soil Cracks (B8)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes No Depth (inches):  Salt Vegetated Plants (D1) (LRR A)  Wetland Hydrology Indicators  Wetland Hydrolos; If available.	<u> </u>
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   Note	<u> </u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
Hydric Soil Indicators: (Applicable to alit LRRs, unless otherwise noted.)  Histosot (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosos (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosos (A1)	
Histosot (A1) Sandy Redox (S5) 2 cc Histic Epipedon (A2) Stripped Malrix (S6) Rei Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Oit Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Betow Dark Surface (A12) Redox Dark Surface (F6) Indicat Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wett Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) wett Sandy Gleyed Matrix (S4) Redox Dapressions (F6) unle Restrictive Layer (If present): Type: Depth (inches) Hydrology Indicators: Primary Indicators (minimum of one required: Check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Saluration (A3) Salt Crust (B11) Sadirention (A3) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solts (C5) Surface Soit Cracks (B6) Surface (B8) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Surface Water Present? Yes No Depth (inches): Surface Sopilary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	ocation: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Olithydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Wetting Sandy Gleyed Matrix (S4) Restrictive Layer (If present): Type: Depit (inches) Hydric Sol Remarks  Wettind Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) Salturation (A3) Salt Crust (B11) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrolog, if available. Describe Recorded Data (stream gauge. monitoring well. aerial photos, previous inspections), if available.	ors for Problematic Hydric Soils':
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Oth Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Betiow Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicated Matrix (S4) Redox Dark Surface (F7) watting Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) watting Sandy Gleyed Matrix (S4) Redox Depressions (F8) unle Restrictive Layer (If present): Type Depth (inches) Hydric Sol Remarks  Hydric Sol Rema	m Muck (A10) d Parent Material (TF2)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Wetting Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Dapressions (F8)  Imperimental Restrictive Layer (If present): Type: Depth (inches).    Depth (inches).	her (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetting Sandy Gleyed Matrix (S4) Redox Dapressions (F8)  Restrictive Layer (If present): Type: Depth (inches) Hydric Sol  Remarks  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B1) Aqualic Invertebrates (B13) Water Marks (B1) Aqualic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent fron Reduction in Tilled Soils (C5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Saltration Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	(2.1)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetting Sandy Gleyed Matrix (S4) Redox Depressions (F8) unlet Restrictive Layer (If present):  Type: Depth (inches). Hydric Sol Methads (September 1997) Hydrogen Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Saturation (A3) Salt Crust (B1) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Drift Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxicized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Deposits (B5) Recent Iron Reduction in Tilled Solits (C6) Surface Soil Cracks (B6) Sundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches): Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	•
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unle  Restrictive Layer (If present): Type: Depth (inches). Hydric Sol  Remarks  Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA High Water Table (A2) 1, 2, 4A, and 4B) Salt Crust (B11) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduction in Titled Solis (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrolog (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous Inspections), if available.	lors of hydrophytic vegetation and
Restrictive Layer (If present): Type: Depth (inches).  Hydric Sol  Remarks  Hydric Sol  Remarks  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required: check all that apply) Secs  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Aquatic Invertebrates (B13) Algal Mai or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrolog (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	and hydrology must be present.  ess disturbed or problematic.
Type:	sa disturbed of problemanc.
Remarks  Hydric Sol Remarks  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Wetland Hydrolog  Includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	
Remarks  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Inundation Visible on Aerial Imagery (B7)  Surface Water Present?  Yes  No  Depth (inches):  Saturation Present?  Yes  No  Depth (inches):  Saturation Previous Inspections), if available.	Il Present? Yes No
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Second Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Crust (B6)  Iron Deposits (B6)  Surface Soil Crust (B6)  Surface Soil Crust (B6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Yes No Depth (inches):  Water Table Present?  Yes No Depth (inches):  Saturation Present?  Yes No Depth (inches):  Wetland Hydrolog (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	
Primary Indicators (minimum of one required; check all that apply)  Second Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mail or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Water Table Present?  Yes No Depth (inches):  Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	
Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water Stained Leaves (B9) (except MLRA  1, 2, 4A, and 4B)  Satt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C5)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches):  Water Table Present?  Yes  No  Depth (inches):  Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	
High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches):  Water Table Present?  Yes No Depth (inches):  Saturation Present?  Yes No Depth (inches):  Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	ondary Indicators (2 or more required)
Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Saturation Present? Yes No Depth (inches): Wetland Hydrolo (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	Water-Stained Leaves (B9) (MLRA 1, 2
Water Marks (B1) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)  Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soits (C5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches): Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	4A, and 4B)
Sediment Deposits (B2)	Drainage Patterns (B10) Dry-Season Water Table (C2)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches):  Water Table Present?  Yes No Depth (inches):  Wettand Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Saturation Visible on Aerial Imagery (C
Algal Mat or Crust (B4)	<u>=</u>
Iron Deposits (B5) Recent fron Reduction in Tilled Soils (C5)  Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A)  Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	Shallow Aquitard (D3)
Surface Soil Cracks (86)  Inundation Visible on Aerial Imagery (87)  Sparsely Vegetated Concave Surface (88)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inches):  Saturation Present?  Yes No Depth (inches):  Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (88)  Field Observations:  Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	Raised Ant Mounds (D6) (LRR A)
Sparsely Vegetated Concave Surface (B8)  Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	Frost-Heave Hummocks (D7)
Field Observations:  Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):  Saturation Present? Yes No Depth (inches):  (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	
Water Table Present?  Yes No Depth (inches): Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	
Saturation Present? Yes No Depth (inches): Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	
Saturation Present? Yes No Depth (inches): Wetland Hydrolo (includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	.,
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	ogy Present? Yes <u>K</u> No
Pamarks	
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(ACTION DA	
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WETLAND DETERMINATION DATA		
Project/Site A3Z	City/County. PA [	CIALIAN Sampling Date 3.18.10
Applicant/Owner MUOLINES		State UA Sampling Point IA3
RMUDGE	Section, Township, Rang	ge
Landform (hillslope, terrace, etc.) Torrace	Local relief (concave, co	onvex, nane) + Cat Slope (%)
Subregion (LRR) LPCA La	1	Long Datum
Soil Map Unit Name Rollinghous	<del></del>	NWI classification.
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes No	(If no, explain in Remarks.)
Are Vegetation Soil significant		formal Circumstances" present? Yes No No
Are Vegetation Soil or Hydrology natura	illy problematic? (If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sho	wing sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	ν	• V
Hydrophytic Vegetation Present?  Yes No  Hydric Soil Present?  Yes No	is the Sampled /	
Welland Hydrology Present? Yes No	<u>X.                                      </u>	
		riance of giller
	worked a	1 G Softesto
VEGETATION - Use scientific names of plants.		
Tree Stratum (Plot size) Abi	solute Dominant Indicator Cover Species? Status	Dominance Test worksheet:  Number of Dominant Species
1.	i	That Are OBL, FACW, or FAC (A)
2		Total Number of Dominant
3		Species Across All Strata (B)
4	= Total Cover	Percent of Dominant Species That Are OBL FACW, or FAC  (A/B)
Sapling/Shrub Stratum (Plot size)		
1		Prevalence Index worksheet:  Total % Cover of Multiply by:
2		OBL species x1 =
3		FACW species x 2 =
5		FAC species 50 x3=
-	= Total Cover	FACU species X4 =
Hern Stratum (Piot size	30 J FACU	UPL species X5 = X5
RAN WYLLUS SPP	5 - 1700	710
TERRITUM OFFICIONALE	25 V FACU	Prevalence Index = B/A =
TRIFITIUM SPP	20 V III	Hydrophytic Vegetation Indicators:
5 DAUCUS CARATA	12 UPL	Dominance Test is >50%  Prevalence Index is ≤3.0°
6		- Morphological Adaptations' (Provide supporting
7		data in Remarks or on a separate sheet)
8		Wetland Non-Vascular Plants     Problematic Hydrophytic Vegetation (Explain)
10		Indicators of hydric soil and wetland hydrology must
		be present, unless disturbed or problematic.
	= Total Cover	
Woody Vine Stratum (Plot size) 1		Hydrophytic
2		Vegetation Present? YesNo
	= Total Cover	
% Bare Ground in Herb Stratum		
Remarks Harris UNITHER	Druinst 5	E or previolent

rofile Description: (Describe to the dep		
Depth Matrix inches) Color (moist) %	Redox Features Color (moist) % Type Loc²	Texture Remarks
inches) Color (moist) %	Color (moist) % Type Loc*	rexture Remarks
The market !	ARIA HOLLAND	1000 010 M
THE TOWN THE	1.2MJ 41 4 41	with can be
<u> </u>		
		į
ype: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or Costed Sand Gr	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	indicators for Problematic Hydric Solls':
_ Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
_ Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
_ Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
_ Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
_ Thick Dark Surface (A12) _ Sandy Mucky Mineral (S1)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present.
Sandy Glayed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
		uniess distarbed or problematic.
strictive i aver (if present):		
_		,
Type		Must Sall Branch Sall
estrictive Layer (if present):  Type  Depth (inches):  emarks		Hydric Soil Present? Yes No
Type		Hydric Soil Present? Yes No
Type		
Type	d, check all that apply)	Secondary Indicators (2 or more required)
Type	d, check all that apply) Water-Stained Leaves (89) (axcept MLF	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1,
Type	d, check all that apply)  Water-Stained Leaves (89) (axcept MLF 1, 2, 4A, and 4B)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1,  4A, and 4B)
Type	d, check all that apply)  Water-Stained Leaves (89) (except MLF 1, 2, 4A, and 4B) Salt Crust (811)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1,
Type	d, check all that apply).  Water-Stained Leaves (89) (except MLF	Secondary Indicators (2 or more required)  RA
Type	d, check all that apply).  Water-Stained Leaves (89) (axcept MLF 1, 2, 4A, and 4B) Salt Crust (811) Aqualic Invertebrates (813) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)  RA
Type	d, check all that apply)  — Water-Stained Leaves (89) (except MLF 1, 2, 4A, and 4B) — Salt Crust (811) — Aquatic Invertebrates (813) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Roo	Secondary Indicators (2 or more required)  RA
Type	d, check all that apply)  — Water-Stained Leaves (89) (except MLF 1, 2, 4A, and 4B)  — Salt Crust (811)  — Aquatic Invertebrates (813)  — Hydrogen Sulfide Odor (C1)  — Oxidized Rhizospheres along Living Roo — Presence of Reduced (ron (C4)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)
Type	d, check all that apply)  — Water-Stained Leaves (89) (except MLF 1, 2, 4A, and 4B) — Salt Crust (811) — Aquatic Invertebrates (813) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Roo — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C8)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type	d, check all that apply)  — Water-Stained Leaves (89) (axcept MLF 1, 2, 4A, and 4B) — Salt Crust (811) — Aquatic Invertebrates (813) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Roo — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C8 — Stunted or Stressed Plants (D1) (LRR A)	Secondary Indicators (2 or more required)  RA
Type	d, check all that apply)  — Water-Stained Leaves (89) (axcept MLF 1, 2, 4A, and 4B) — Salt Crust (811) — Aquatic Invertebrates (813) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Roo — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C8 — Stunted or Stressed Plants (D1) (LRR A)  7) — Other (Explain in Remarks)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type	d, check all that apply)  — Water-Stained Leaves (89) (axcept MLF 1, 2, 4A, and 4B) — Salt Crust (811) — Aquatic Invertebrates (813) — Hydrogen Sulfide Odor (C1) — Oxidized Rhizospheres along Living Roo — Presence of Reduced Iron (C4) — Recent Iron Reduction in Tilled Soils (C8 — Stunted or Stressed Plants (D1) (LRR A)  7) — Other (Explain in Remarks)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type	d, check all that apply)  — Water-Stained Leaves (89) (except MLF  1, 2, 4A, and 4B)  — Salt Crust (811)  — Aquatic Invertebrates (813)  — Hydrogen Sulfide Odor (C1)  — Oxidized Rhizospheres along Living Roo  — Presence of Reduced fron (C4)  — Recent Iron Reduction in Tilled Soils (C8  — Stunted or Stressed Plants (D1) (LRR A)  7)  — Other (Explain in Remarks)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type	d, check all that apply).  — Water-Stained Leaves (89) (axcept MLF 1, 2, 4A, and 4B)  — Salt Crust (811)  — Aquatic Invertebrates (813)  — Hydrogen Sulfide Odor (C1)  — Oxidized Rhizospheres along Living Roo  — Presence of Reduced Iron (C4)  — Recent Iron Reduction in Tilled Soils (C8 Stunted or Stressed Plants (D1) (LRR A)  7) — Other (Explain in Remarks)  88)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type  Depth (inches) emarks  PDROLOGY  Pettand Hydrology Indicators: cimary Indicators (minimum of one require) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface (eld Observations:	d, check all that apply).  — Water-Stained Leaves (89) (axcept MLF 1, 2, 4A, and 4B)  — Salt Crust (811)  — Aquatic Invertebrates (813)  — Hydrogen Sulfide Odor (C1)  — Oxidized Rhizospheres along Living Roo  — Presence of Reduced Iron (C4)  — Recent Iron Reduction in Tilled Soils (C8 Stunted or Stressed Plants (D1) (LRR A)  7) — Other (Explain in Remarks)  88)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Type	d, check all that apply)  Water-Stained Leaves (89) (except MLF  1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C8  Stunted or Stressed Plants (D1) (LRR A)  7)  Other (Explain in Remarks)  88)  No  Depth (inches):	Secondary Indicators (2 or more required)  RA
Type	d, check all that apply)  — Water-Stained Leaves (89) (except MLF 1, 2, 4A, and 4B)  — Salt Crust (811)  — Aquatic Invertebrates (813)  — Hydrogen Sulfide Odor (C1)  — Oxidized Rhizospheres along Living Roo  — Presence of Reduced fron (C4)  — Recent Iron Reduction in Tilled Soils (C8)  — Stunted or Stressed Plants (D1) (LRR A)  7) — Other (Explain in Remarks)  88)  No Depth (inches): — Wetta	Secondary Indicators (2 or more required)  RA
Depth (inches):  Permarks  DROLOGY  Internation Hydrology Indicators:  Imary Indicators (minimum of one requires):  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (Inches Water Present)  Indice Water Present?  Ind	d, check all that apply)  Water-Stained Leaves (89) (except MLF  1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C8  Stunted or Stressed Plants (D1) (LRR A)  7)  Other (Explain in Remarks)  88)  No  Depth (inches):	Secondary Indicators (2 or more required)  RA

WETLAND DETERMINATION	DATA FORM -	Western Mou	intains, Valleys, and Coast Region
^ - <del>-</del>	City/	^	
Applicant/Owner. MOILUSON			Slate Sampling Point
Investigator(s) hmuno	Sect		ange.
Landform (hillstope, terrace, etc.)	/I ^		convex, none): FIAT Slope (%) 5
Subregion (LRR): LLCA	Lat		Long. Datum.
2	an.	, , , , , , , , , , , , , , , , , , , ,	NWI classification, NOIL
Are climatic / hydrologic conditions on the site typical for	this time of year?	Yes X No	(If no, explain in Remarks )
Are Vegetation			"Normal Circumstances" present? Yes No K
Are Vegetation Soil or Hydrology	naturally problem		eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	n showing sar		ocations, transects, important features, etc
		inpinia ponitri	ocations, transects, important reatures, etc
Hydrophytic Vegetation Present? Yes	\ <i>\</i>	Is the Sampled	1 Area
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	- ( )	within a Wetlar	nd? Yes No
Remarks.	110 /	<u> </u>	
		·	
VEGETATION - Use scientific names of pla	ants.		
Tree Stratum (Plot size)		ninant Indicator	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC(A)
3			Total Number of Dominant Species Across All Strata (8)
4			
Sapling/Shrub Stratum (Plot size )	= To	etal Cover	Percent of Dominant Species That Are OBL FACW, or FAC
1			Prevalence Index worksheet:
2			Total % Cover of: Multiply by
3			OBL species x 1 =
4.,	····		FACW species x2 = 10
5			FAC species
Herb Stratum (Plot size)	= 10	ital Cover	UPL species
Manneso Lanceolatta	_ <u> </u>	FACU	Column Totals: (A) (B)
2 HTTUS GLOMERATH		FEYCU	275
3 KHUNUMUS SAF	<del></del>	— EHCU	
4 HUNDHALIUS PADICATA	<del></del>	<u>FAC</u> _	Hydrophytic Vegetation Indicators:
5 PHUCUS CARCITA	_ <del>-  </del>	<u>UPL</u>	Dominance Test is >50%
6 NUA MESUIA	_ — —	UPL	Prevalence Index is ≤3.0'  Morphological Adaptations' (Provide supporting
8			data in Remarks or on a separate sheet)
9			Wetland Non-Vascular Plants
10			Problematic Hydrophytic Vegetation* (Explain)
11			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	3(0 = Tot	a Cover	se present, amess disturbed of problematic.
Woody Vine Stratum (Plot size)	)		III di ab ati
1		<del></del>	Hydrophytic Vegetation
	= Tot	al Cover	Present? Yes No
% Bare Ground in Herb Stratum		21 00461	
Remarks		·	
No dominates in	nlat 1	30 11.00	n.h.

OiL	•	Sampling Point: 4	<u>CA4</u>
rofile Description: (Describe to	the depth needed to document the indicator	or confirm the absence of indicators.)	
Depth Matrix	Redox Features  Cotor (moist)	Loc <sup>2</sup> Texture Remarks	
inches) Color (moist)	% Color (moist) % Type	LDC 16ALDIS	
			~\d\ \alpha
-12 (Jun 413.	10ne		fuc
12toklinens	daylan		
10040	W/1000516 401.		
		2) and a Charles Charles that	Antriu
ype: C=Concentration, D=Deplet vdric Soll Indicators: (Applicat	ion, RM=Reduced Matrix, CS=Covered or Coat ile to all LRRs, unless otherwise noted.)	ed Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=N Indicators for Problematic Hydric	
Histosof (A1)	Sandy Redox (S5)	2 cm Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)	
Black Histic (A3)	Loamy Mucky Mineral (F1) (excep	ot MLRA 1) Other (Explain in Remarks)	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		
Depleted Below Dark Surface		le de la companya de	
_ Thick Dark Surface (A12)	Redox Dark Surface (F6)	Indicators of hydrophytic vegetation	
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)	wetland hydrology must be prese unless disturbed or problematic.	114.
Sandy Gleyed Matrix (S4) estrictive Layer (If present):	Redax Depressions (Fo)	uniess diataloud of productions.	
Type: Depth (inches):		Hydric Soil Present? Yes	No <u>大</u>
Pales (a clay	layer.		
YDROLOGY	WICJ.		
Vetland Hydrology Indicators:			
rimary Indicators (minimum of on-	required; check all that apply)	Secondary Indicators (2 or more	
Surface Water (A1)	Water-Stained Leaves (B9) (	except MLRA Water-Stained Leaves (B9) (	MLRA 1, 2,
High Water Table (A2)	1, 2, 4A, and 4B)	4A, and 4B)	
_ Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)	
Water Marks (81)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2	
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial II	magery (C9
Drift Deposits (B3)	Oxidized Rhizospheres along	g Living Roots (C3) Geomorphic Position (D2)	
_ Algal Mat or Crust (B4)	Presence of Reduced Iron (C		
Iron Deposits (B5)	Recent Iron Reduction in Till		
Surface Soil Cracks (B6)	Stunted or Stressed Plants (		
Inundation Visible on Aerial Im	agery (B7) Other (Explain in Remarks)	Frost-Heave Hummocks (D7	)
_ Sparsely Vegetaled Concave	Surface (B8)		
ield Observations:			
urface Water Present? Ye	s Nd Depth (inches):		
Vater Table Present? Ye	s No Depth (inches):		ł.
sturation Present? Ye	s No Depth (inches):	Wetland Hydrology Present? Yes	No <u>X</u>
ncludes capillary fringe) Describe Recorded Data (stream (	gauge, monitoring well, aerial photos, previous in	nspections), if available.	
Remarks tolla	a non		
Water talde (			
Smile Mri	x (0 14" not a	atrivated until 16º	

WETLAND DETERMINATION DATA FORM – Western Mour	ntains, Valleys, and Coast Region
Project/Site A2Z City/County PA 10	TAUAM Sampling Date 3.18.1
Applicant/Owner WWW SUT	State Sampling Point IA5
Investigator(s) Section, Township, Ran	oge
Landform (hillslope, terrace, etc.). 1000 Local relief (concave, c	onvex none) Flat Slope (%) 5%.
	Long Datum.
	NWI classification. NO.C.
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No	
	Normal Circumstances" present? Yes No
Are Vegetation Soil, or Hydrology naturally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point to	ocations, transects, important features, etc.
Hydrophylic Vegetation Present?  Yes /_ No Is the Sampled	Area
Hydric Soil Present? Yes No within a Wetlan	$\checkmark$
Welland Hydrology Present? Yes No	
Telligins.	
VEGETATION – Use scientific names of plants.	
Tree Stratum (Plot size) Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:  Number of Dominant Species
1	That Are OBL, FACW, or FAC(A)
3	Total Number of Dominant Species Across All Strata
4	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size)	That Are OBL FACW, or FAC (A/B)
1	Prevalence Index worksheet:
2	Total % Cover of   Multiply by
3	FACW species 5 x 2 = 10
5	FAC species x 3 =
= Total Cover	FACU species
Herb Stratum (Plot size )	UPL species $x5 = 360$ (B)
19911/A MUDEA 30 V FAC	25
naminarius sep 5 Tacio	Prevalence Index = B/A =
4 TREOLUM SPP 5 - THE	Hydrophytic Vegetation Indicators:
5 TAVAXACUM OFICIONAIS TACU	Prevalence Index is \$3.0'
7 VICIA HIESUTA I UPL	Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)
8	Wetland Non-Vascular Plants
9	Problematic Hydrophytic Vegetation (Explain)
10	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
= Total Cover	be present, unless distance of problematic.
Woody Vine Stratum (Plot size)	
1	Hydrophytic Vegetation
2 = Total Cover	Present? Yes No
% Bare Ground in Herb Stratum 10.1.	olal codes la
REMARKS ARLA OF MOSTUM GRASSES WILL	onplek oldle to
approx calers.	

SOIL .						Sampl	ling Point: <u>TA5</u>
Profile Descrip	tion: (Describe t	o the dept	needed to document the India	cator or confirm	m the absence		
Depth	Matrix		Redox Features			·	
(inches)	Color (moist)	%		vpe Loc²	Texture	<u></u>	Remarks
							1
U-10 I	Mh33		0416 21		AL	MG WAR	n w/clay
710 ]	ourd2	501	1044 LE 50.1.			CIAU	<del>DAM</del>
				<u> </u>			
<del></del>	<del></del>		<del></del>	<del></del>			<del></del>
			Reduced Matrix, CS=Covered or RRs, unless otherwise noted.)				e Lining, M=Matrix.
Histosof (A	1)	-	Sandy Redox (S5)		2	cm Muck (A10)	
Histic Epipe	edon (A2)	-	Stripped Matrix (S6)		_	ted Parent Materia	
Black Histic	(EA)		Loamy Mucky Mineral (F1) (e	xcept MLRA 1	) 0	)ther (Explain in R	emarks)
Hydrogen S	Sulfige (A4) elow Dark Surface	- (411)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)			_	
'	Surface (A12)		Redox Dark Surface (F6)		<sup>3</sup> Indic	ators of hydrophyt	ic vegetation and
_	ky Mineral (S1)	-	Depleted Dark Surface (F7)			stland hydrology m	•
	red Matrix (S4)	-	Redox Depressions (F8)			less disturbed or g	
Restrictive Lay						<u> </u>	
Type:							•
Depth (inche	s).		_		Hydric S	oil Present? Y	96 <u>N</u> No
Remarks  C1 : 0 (1)	CLACY 1	HER	. Upper ee. LAY Plesence	ACH (	ACCE	S HOLTI	KS E
かいられ HYDROLOGY		ט אַא	my recard	<u> </u>	11°	<b>P</b> 10	
			<del></del>				
•	logy Indicators:		N		0-		(0
Primary Indicate	ors (minimum of or	ne required	check all that apply)				(2 or more required)
Surface Wa	iter (A1)		Water-Stained Leaves (	B9) (except ML	LRA		eaves (B9) (MLRA 1, 2,
High Water	Table (A2)		1, 2, 4A, and 4B)			4A, and 4B)	
Saturation (	(A3)		Salt Crust (B11)			Drainage Pattern	
Water Mark	is (B1)		Aquatic Invertebrates (B	313)		Dry-Season Wat	er Table (C2)
Sediment D	eposits (82)		Hydrogen Sulfide Odor	(C1)		Saturation Visibl	e on Aerial Imagery (C9)
Drift Depos	its (B3)		Oxidized Rhizospheres	along Living Ro	oots (C3)	Geomorphic Pos	sition (D2)
Algal Mat o	r Crust (B4)		Presence of Reduced Ir	on (C4)	_	Shallow Aquitare	•
Iron Deposi	ils (B5)		Recent Iron Reduction i	n Tilled Soils (C	C6) <u> </u>	FAC-Neutral Tes	st (D5)
Surface Soi	il Cracks (86)		Stunted or Stressed Pla	ints (D1) (LRR /	A)	Raised Ant Mou	nds (D6) (LRR A)
Inundation '	Visible on Aerial Ir	nagery (B7	Other (Explain in Rema	rks)	·	Frost-Heave Hui	mmocks (D7)
Sparsely Ve	egetated Concave	Surface (B	8)				
Field Observat	ions:						
Surface Water F	Present? Ye	es N	o Depth (inches)	<del></del>			
Water Table Pre	esent? Ye	es 🔀 N	o Depth (inches):	<u>2''</u>			<b>v</b> .•
Saturation Prese (includes capilla	iny fringe)		o Depth (inches):			logy Present? 1	Yes No
Describe Record	ded Data (stream	gauge, moi	itoring well, aerial photos, previo	ous Inspections)	), if available		
	<del>-</del>			<del></del>			<del></del>
Remarks		-					•
		•					

WETLAND DETERMINATION DATA FO	RM - Western Mour	itains, Valleys, and Coast Region
December ASS	City/County CLC	Ulcun Sampling Date IA6
Project/Site	_	State Sampling Point
0.00	Section, Township, Ran	
10.000 C		onvex none) + ++ Slope (%) 51.
	_	
Subregion (LRR) Lat		Long Datum:
Soil Map Unit Name   Rel 1) Quo	<u> </u>	NWI classification.
Are climatic / hydrologic conditions on the site/typical for this time of		(If no, explain in Remarks )
Are Vegetation significan		Normal Circumstances" present? Yes No K
Are Vegetation Soil or Hydrology naturally		eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showle	ng sampling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	- Is the Sampled	Āras
Hydric Soil Present? Yes No	within a Wetlan	· · · · · · · · · · · · · · · · · · ·
Welland Hydrology Present? Yes No		
Remarks:	$\cap$	
I LO DAVA TAVEC: LA	Ma Sal A	re thint inundated
	ws our	CE TOTAL MAG CASAG
VEGETATION - Use scientific names of plants.	Basis at Indiana.	Dominance Test worksheet:
Absolution	ite Dominant Indicator rer Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC(A)
2		Total Number of Dominant
3		Species Across All Strala(B)
4		Percent of Dominant Species
	= Total Cover	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size)  1		Prevalence Index worksheet:
2		Total % Cover of Multiply by
3		OBL species x 1 =
4		FACW species x 2 =
5		FAC species x 3 =
	= Total Cover	FACU species x 4 =  UPL species x 5 =
Herb Stratum (Plot size)		UPL species x 5 = (B)  Column Totals (A) (B)
		COUNTY FORMS
3		Prevalence Index = B/A =
4		Hydrophytic Vegetation Indicators:
5		Dominance Test is >50%
6		Prevalence Index is \$3.0°  Morphological Adaptations (Provide supporting
7		data in Remarks or on a separate sheet)
8		Welland Non-Vascular Plants
9		Problematic Hydrophytic Vegetation (Explain)
10		Indicators of hydric soil and wetland hydrology must
11	= Total Cover	be present, unless disturbed or problematic
Woody Vine Stratum (Plot size)		
1		Hydrophytic
2		Vegetation   Present?   Yes No
	= Total Cover	
% Bare Ground in Herb Stratum		
Remarks		

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, C Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Matrix Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matrix Thick Dark Surface (A12) Redox Dark S	Indicators for Problematic (195)  Indicators for Problematic (195)  Indicators for Problematic (195)  Indicators for Problematic (195)  Red Parent Material (TF)  Mineral (F1) (except MLRA 1)  Other (Explain in Remark (195)  Indicators of hydrophytic vegots (195)  Indicators for Problematic (195)  Indicators for Pro	ng, M=Matrix.  Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present.  amatic.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, C dydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Matrix Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matrix Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (Inches). Remarks	CS=Covered or Coated Sand Grains.  PL=Pore Linit Indicators for Problematic Research (S5)  Indicators for Problematic Research (S5)  Red Parent Material (TF: Other (Explain in Remark (F2))  Indicators of hydrophytic vegor (F6)  Surface (F6)  Surface (F7)  Sustant (F8)  PL=Pore Linit Pl=Pore Lini	ng, M=Matrix. Hydric Solis³:  2) ks) getation and be present, amatic.
ydric Soit Indicators: (Applicable to all LRRs, unless othe Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (if present): Type Depth (inches)  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)  (Miner	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
ydric Soit Indicators: (Applicable to all LRRs, unless othe Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (if present): Type Depth (inches)  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)  (Miner	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Aydric Soit Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Mairi Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)  (Miner	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Aydric Soit Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Mairi Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)  (Miner	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)  (Miner	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)  (Miner	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Mairi Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Mairi Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches)  Remarks	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Mairi Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Hydric Soil Indicators: (Applicable to all LRRs, unless other Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	Indicators for Problematic (S5)  (S5)  (S6)  (Mineral (F1) (except MLRA 1)  (Mineral (F2)  Irix (F3)  Surface (F6)  (K Surface (F7)  Sissions (F8)  Indicators for Problematic (Problematic (A10)  (Matrix (A10)  (TF)  (Mineral (A10)	Hydric Solis <sup>3</sup> :  2)  ks)  getation and e present, amatic.
Histosol (A1) Sandy Redox Histic Epipedon (A2) Stripped Mairi. Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Mair Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	2 cm Muck (A10) Red Parent Material (TF: y Mineral (F1) (except MLRA 1) od Matrix (F2) trix (F3) Surface (F6) Surface (F7) sistions (F8)  2 cm Muck (A10) Red Parent Material (TF: Other (Explain in Remark Indicators of hydrophytic veg wetland hydrology must be unless disturbed or proble	2) ks) getation and e present, amatic.
Histic Epipedon (A2) Stripped Malri.  Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres  Restrictive Layer (If present): Type Depth (inches).  Remarks	rix (S6) Red Parent Material (TF: y Mineral (F1) (except MLRA 1) Other (Explain in Remark id Matrix (F2)  rix (F3) Surface (F6) Indicators of hydrophytic ver ik Surface (F7) wetland hydrology must b unless disturbed or proble	ks) getation and e present, amatic.
Black Histic (A3) Loamy Mucky Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres  Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	y Mineral (F1) (except MLRA 1)  Id Matrix (F2)  Irix (F3)  Surface (F6)  Indicators of hydrophytic very wetland hydrology must be unless disturbed or proble	ks) getation and e present, amatic.
Hydrogen Sulfide (A4) Loamy Gleyed Depleted Below Dark Surface (A11) Depleted Matr Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks  YDROLOGY	d Matrix (F2)  trix (F3)  Surface (F6)  k Surface (F7)  ssions (F8)  wetland hydrology must b unless disturbed or proble	getation and e present. amatic.
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (S4)  Redox Dark S Redox Dark S Redox Depleted Dark Redox Depres Restrictive Layer (If present):  Type  Depth (inches)  Remarks	trix (F3) Surface (F6) 'Indicators of hydrophytic ver k Surface (F7) wetland hydrology must b issions (F8) unless disturbed or proble	e present. amatic.
Thick Dark Surface (A12) Redox Dark S Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks	Surface (F6) Indicators of hydrophytic veg k Surface (F7) wetland hydrology must b issions (F8) unless disturbed or proble	e present. amatic.
Sandy Mucky Mineral (S1) Depleted Dark Sandy Gleyed Matrix (S4) Redox Depres Restrictive Layer (If present): Type Depth (inches).  Remarks	k Surface (F7) wetland hydrology must b essions (F8) unless disturbed or proble	e present. amatic.
Sandy Gleyed Matrix (S4) Redox Depres  Restrictive Layer (If present):  Type Depth (inches).  Remarks	ssions (F8) unless disturbed or proble	amatic.
Restrictive Layer (if present):  Type  Depth (inches).  Remarks		ng kanali di Milita kanasan Papanan ayan K. Mi di sa v
Type Depth (inches) Remarks  YDROLOGY	Hydric Soil Present? Yes	No
Depth (inches).  Remarks  YDROLOGY	Hydric Soil Present? Yes	No
Remarks YDROLOGY	Hydric Soft Present? Tes	NO
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that app		
	Stained Leaves (B9) (except MLRA Water-Stained Leaves	s (89) (MLRA 1, 1
	4A, and 4B) 4A, and 4B)	
Saturation (A3) Salt Crus		
	Invertebrates (B13) Dry-Season Water Ta	
	en Sulfide Odor (C1) Saturation Visible on	
	d Rhizospheres along Living Roots (C3) Geomorphic Position	
	ce of Reduced Iron (C4) Shallow Aquitard (D3	
	iron Reduction in Tilled Solls (C6) FAC-Neutral Test (D5	
	or Stressed Plants (D1) (LRR A) Raised Ant Mounds (	D6) (LRR A)
<del></del>	Explain in Remarks) Frost-Heave Hummon	cks (D7)
Sparsely Vegetated Concave Surface (B8)		
Field Observations:		
Surface Water Present? Yes No Depth (i	(inches)	
Water Table Present? Yes No Depth (i	(inches):	
Saturation Present? Yes No Depth (i		No
(includes capitlary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aeria	al photos, previous inspections), if available.	
Remarks		
,		

prican/Comer westpoints  Siste Sampling Point  Applican/Comer westpoints  Section Township, Range and	WEILAND DETERM	MINATION DATA	FORM - I	Western Mou	ntains, Valleys, ar	nd Coast Region	
polica November   State   Samping Pont	Project/Site A2Z		City/C	COUNTY PA	KIAHAN	Sampling Date , Z	1.21
Section Township, Range   Slope (%)   Department   Depa	Applicant/Owner MUVUS	91			• = •	_	~
andorm (nilistope terrace etc.   TOTAL   Local relief (concave, convex, none)   Slope (%)							
List Long Datum  ANVI classification (Direction)  The Contract Phytrogetic conditions on the site lypical for mixture adversity and the climate in phytrogetic conditions on the site lypical for mixture adversity dissurbed.  The Vegetation Soil or Hydrology significantly dissurbed.  The Vegetation Soil or Hydrology naturally problematic? (If needed explain any answers in Remarks.)  IMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrology Present?  Yes No Watter Statum (Processor Present? Yes No Watter Statum (Processor Present? Yes No Watter Statum (Processor Present? Yes No Watter Statum (Processor Present? Yes No Watter Statum (Processor Present? Yes No Watter Statum (Processor Present? Yes No Watter Statum (Processor Present? Yes No Watter Statum (Processor Present of Commant Species That Are Obs. FACV. or FAC (A) That Norther of Commant Species That Are Obs. FACV. or FAC (A) That Norther of Commant Species Areas All Status (B) Prevented Indian worksheet (B) Facv. or FAC (A) That (B) Facv. or FAC (	Landform (hillstope terrace, etc.)	15 N (16 L					(%)
in Map funl Name	Subregion (LRR)						
re climatic Produciopic Condidors on the site lipical for the Managharem Nava.  No	Soil Map Unit Name 4						
UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegelation Present?  Yes No Within a Wetland?  Yes No	Are climatic / hydrologic conditions on the	site typical for this time	of year? Y	esX_No_	(If no, explain in	Remarks !	
UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. hydrophytic Vegetation Present? Yes No within a Wetland? Yes No No within a Wetland? Yes No	Are Vegetation Soil or Hy	rdrology signific	antly distur	bee! Are	Normal Circumstances"	present? Yes	NoK
Hydrophytic Vegetation Present?  Yes No Welland Hydrology Present Indicators	Are Vegetation Soil or Hy	rdrologynatura	ily problema	alic? (If ne	eded, explain any answ	ers in Remarks )	
Hydrophytic Vegetation Present?  Yes No Welland Hydrology Present Indicators	SUMMARY OF FINDINGS - Atta	ach site map show	wing sam	pling point is	ocations, transect	s, important feati	ures, etc.
Welland Hydrology Present?  Yes No within a Welland?  Welland Hydrology Present?  Welland Hydrology Present of Dominant Species That Are OBL FACW, or FAC  (A)  Total Number of Dominant Species That Are OBL FACW, or FAC  (A)  Total Number of Dominant Species That Are OBL FACW, or FAC  (A)  Prevalence Index worksheet:  Total Scover of Mulliply, by  OBL species  FACW	A COLUMN TO THE COLUMN TWO CO		,				
Welland Hydrology Present?  Remarks.  EGETATION – Use scientific names of plants.  Absolute Dominant Indicator Species? Status.  Absolute Dominant Indicator Species? Status.  Tree Stratum (Piol size	-	\	<del>}</del>	is the Sampled		١.	
Remarks  EGETATION – Use scientific names of plants.  Absolute Dominant Indicator	•	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		within a Wetlan	nd? Yes	No <u>X</u>	
Absolute Dominant Indicator Species? Status Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Percent of Dominant Species That Are OBL FACTOR or FAC. (A)  Prevalence Index worksheet:  Total Cover Multiply by  OBL species 12 = FACTOR or FAC. (A)  FACTOR Species 13 = FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Prevalence Index worksheet:  Total Cover Multiply by  OBL species 12 = FACTOR Species 13 = FACTOR Species 13 = FACTOR Species 14 = FACTOR Species 15 = FACTOR Species	Remarks.			<del></del>		<del> </del>	
Absolute Dominant Indicator Species? Status Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Percent of Dominant Species That Are OBL FACTOR or FAC. (A)  Prevalence Index worksheet:  Total Cover Multiply by  OBL species 12 = FACTOR or FAC. (A)  FACTOR Species 13 = FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Prevalence Index worksheet:  Total Cover Multiply by  OBL species 12 = FACTOR Species 13 = FACTOR Species 13 = FACTOR Species 14 = FACTOR Species 15 = FACTOR Species							
Absolute Dominant Indicator Species? Status Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Percent of Dominant Species That Are OBL FACTOR or FAC. (A)  Prevalence Index worksheet:  Total Cover Multiply by  OBL species 12 = FACTOR or FAC. (A)  FACTOR Species 13 = FACTOR or FAC. (A)  Total Number of Dominant Species That Are OBL FACTOR or FAC. (A)  Prevalence Index worksheet:  Total Cover Multiply by  OBL species 12 = FACTOR Species 13 = FACTOR Species 13 = FACTOR Species 14 = FACTOR Species 15 = FACTOR Species			~				
Species   Status   Number of Dominant Species   That Are OBL FACW or FAC.   (A)	VEGETATION – Use scientific n	ames of plants.					
That Are OBL FACW, or FAC  (A)  Total Number of Dominant Species Across All Strata  Percent of Dominant Species That Are OBL FACW, or FAC  (A/B)  Prevalence Index worksheet: Total Scover of Multiply by  OBL species x 1 = FACW species x 2 = FAC species x 3 = FACW species x 4 = FACW species x 5 = FACW species x 5 = FACW species x 5 = FACW species x 6 = FACW species x 6 = FACW species x 6 = FACW species x 7 = FACW species x 8 = FACW species x 9 = FA	· · · · · · · · · · · · · · · · · · ·				Dominance Test wor	ksheet:	
Total Number of Dominant Species Across All Strata (B)  Percent of Dominant Species That Are OBL FACW, or FAC (Cover)  Total Cover That Are OBL FACW, or FAC (Cover)  Total Scover of Multiply by OBL species (Cover)  Total Scover of Multiply by OBL species (Cover)  Total Cover (Cover							(A)
Species Across All Strata (B) Percent of Dominant Species That Are OBL. FACW, or FAC.  [A/B] Prevalence Index worksheet: Total % Cover of Multiply by OBL species x 1 = FACW species x 2 = FACW species x 3 = FACW species x 4 = FACW species x 5 = Column Totals (A) Frevalence Index = B/A = FACS species x 5 = FACW specie							` '
Saping/Shrub Stratum (Plot size	3						(B)
Prevalence Index worksheet:   Total % Cover of   Multiply by	4			tal Cover		. , , ,	! • (A/R)
Total % Cover of Multiply by OBL species	Sapling/Shrub Stratum (Plot size						
OBL species	• • • • • • • • • • • • • • • • • • • •				1		v
FACW species	· <del>··················</del>						
FAC species					FACW species	x 2 =	
Prevalence Index = B/A =	5				FAC species	<u>Ω</u> x3 = <u></u> ω	5
Column Totals (A) CATA  DATUS CHARLES (A) CATA  Prevalence Index = B/A =		<u></u>	= To	tal Cover	1 7 17	<u> </u>	
Prevalence Index = 8/A =	THOM LOTIC (AN)	CATO 1	0	FAS	بشنون ا	25	
Hydrophytic Vegetation Indicators:  Dominance Test is >50% Prevalence Index is \$3.0' Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Wetland Non-Vascular Plants' Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Woody Vine Stratum (Plot size  Hydrophytic Vegetation Present? Yes No X  Remarks  Welland Non-Vascular Plants' Problematic Hydrophytic Vegetation Present? Yes No X  No Remarks  Welland Non-Vascular Plants' Problematic Hydrophytic Vegetation Present? Yes No X  No X  No Remarks  Welland Non-Vascular Plants' Problematic Hydrophytic Vegetation Present? Yes No X  No X  No Remarks	SAINTS CALOR	A	50	Z 1701	Column Totals	AC (A)	<u> </u>
Dominance Test is >50% Prevalence Index is \$3.0' Prevalence Index is \$3.0' Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Woody Vine Stratum (Plot size  Hydrophytic Vegetation Present?  Hydrophytic Vegetation Present?  Yes No X  Remarks  William Stratum (Plot Stratum Stratu	DATIVES COLOMO	ATTA Z	位 2	K_FACU	Prevalence Inde	x = B/A = 4.0	<u> </u>
Prevalence Index is 53.0°  Prevalence Index is 53.0°  Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)  Welland Non-Vascular Plants'  Problematic Hydrophytic Vegetation (Explain)  Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Woody Vine Stratum (Plot size)  Hydrophytic Vegetation Present? Yes No  Remarks   Well were lower grad than Observed Prior    Prevalence Index is 53.0°  Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)  Welland Non-Vascular Plants'  Problematic Hydrophytic Vegetation    Hydrophytic Vegetation    Present? Yes No	1 TEIFDILLIM SOX		<u>'_</u> و	· FAC.	Hydrophytic Vegetal	tion indicators:	
Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)  Welland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.  Woody Vine Stratum (Plot size)  Hydrophytic Vegetation Yes No  ### Hydrophytic Vegetation Present? Yes No  Remarks	FAnuncuus'	<u>500</u>	<u>5</u>		4 —		
data in Remarks or on a separate sheet)  Welland Non-Vascular Plants  Problematic Hydrophytic Vegetation (Explain)  Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Woody Vine Stratum (Plot size	* EUCATHEMUM	ALICE HICE	<del>/2</del> —	-1377	1 <del>-</del>		
Welland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.  Woody Vine Stratum (Plot size)  Hydrophytic Vegetation Present? Yes NoX  Remarks   Waccum Non-Vascular Plants	7 HUANTAGO, UHN	CCUMH_		+ACC			
Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Woody Vine Stratum (Plot size)  Hydrophytic Vegetation Present? Yes NoX  Remarks   Wall   Ward			<del></del>	<del></del>	Welland Non-Vas	cular Plants	
Total Cover  Woody Vine Stratum (Plot size)  Hydrophytic Vegetation Present? Yes No  Remarks Wellow and Stratum Stratum Freshor Present?  We have bord prior total cover And	9			<del></del>	Problematic Hydr	ophytic Vegetation (E	xplain)
Woody Vine Stratum (Plot size)  1 2 = Total Cover Hydrophytic Vegetation Present? Yes No  We Bare Ground in Herb Stratum 5:  .  Remarks Much had bare and Served Prior   No    OP   No    We want to the property of the prior					,		
Hydrophytic Vegetation Present? Yes No			Tol	al Cover	be present, unless dis		
Wegetation Present? Yes No X  Wegetation Present	Woody Vine Stratum (Plot size	)	•				
# Bare Ground in Herb Stratum 5.1. = Total Cover Present? Yes No_X  Remarks Much have born grad than observed Prior  OP-					, , , ,	١	
Remarks Much nucle borre grad than observed prior	2	<del></del> _		al Cover	_	'es NoX	<del>-</del>
OP-	% Bare Ground in Herb Stratum 5	<u>l.                                    </u>		ai 0046i	L		
OP-	Remarks ( . G ( la. )	(V. 0 100 ) 0	Cura	م لل ام	2 1 Arca	and Dr	ia
S Army Corps of Engineers  Western Mountains Valleys and Coast – Interim Version	Much M	re will	AL L	UC TY	W UVX	aver pr	<b>√</b> ∪1
S Army Corps of Engineers Western Mountains Valleys and Coast – Interim Version	(A)P.						
	US Army Corps of Engineers			٧	Vestern Mountains Val	leys and Coast - Inter	im Version

DIL		Sampling Point:
rofile Description: (Describe to the depth need	ed to document the Indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	To do to Bomorke
inches) Color (moist) % Colo	r (moist) % Type Loc2	Texture Remarks
THE HOLD TO !		Marileon to maria
1.11 10MJ32 100.1.	<del></del>	- auguru puga
- Tele - Tele	<del></del>	
	MO 21.	white
	) '	
714 101/06/2 7.5	W710 40.1.	<u> </u>
	0 -1 - 1	
Type: C=Concentration, D=Depletion, RM=Reduce	ed Matrix, CS=Covered or Coated Sand G	rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
ydric Soil Indicators: (Applicable to all LRRs, L	unless otherwise noted.)	Indicators for Problematic Hydric Solls':
	ndy Redox (S5)	2 cm Muck (A10)
# · · · · · · · · · · · · · · · · · · ·	ipped Matrix (S6)	Red Parent Material (TF2)
	amy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
_ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	amy Gleyed Matrix (F2) pleted Matrix (F3)	,
Thick Dark Surface (A12) Re	dox Dark Surface (F6)	Indicators of hydrophytic vegetation and
_ /	pleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4) Re	dox Depressions (F8)	unless disturbed or problematic.
estrictive Layer (if present):		
Туре		
·· <del></del> _		
Depth (inches).		Hydric Soll Present? Yes No
Depth (inches).  temarks  YDROLOGY		Hydric Soll Present? Yes No No
Depth (inches).  emarks  /DROLOGY  Vetland Hydrology Indicators:	all that apply)	Secondary Indicators (2 or more required)
Depth (inches).  emarks  /DROLOGY  /ettand Hydrology Indicators:  rimary Indicators (minimum of one required; check	all that apply)  Water-Stained Leaves (B9) (except ML	Secondary Indicators (2 or more required)
Depth (inches). emarks  /DROLOGY /etiand Hydrology Indicators:		Secondary Indicators (2 or more required)
Depth (inches).  emarks  /DROLOGY  /etiand Hydrology Indicators:  rimary Indicators (minimum of one required; check  Surface Water (A1)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (89) (MLRA 1, 2,  4A, and 4B) Drainage Patterns (810)
Depth (inches).  emarks  /DROLOGY  /etiand Hydrology Indicators:  rimary Indicators (minimum of one required check  Surface Water (A1)  High Water Table (A2)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required)  RA Water-Stained Leaves (B9) (MLRA 1, 2,
Depth (inches).  emarks  /DROLOGY  /etiand Hydrology Indicators:  rimary Indicators (minimum of one required check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)  RA
Pepth (inches).  Permarks  Permarks  Petiand Hydrology Indicators:  rimary Indicators (minimum of one required; check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro	Secondary Indicators (2 or more required)  RA
Depth (inches).  emarks  (DROLOGY  Vettand Hydrology Indicators:  rimary Indicators (minimum of one required: check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required)  RA
Pepth (inches).  Permarks  Permarks  Petiand Hydrology Indicators:  rimary Indicators (minimum of one required; check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	Secondary Indicators (2 or more required)  RA
Pepth (inches).  emarks  /DROLOGY  /etiand Hydrology Indicators: rimary Indicators (minimum of one required; check  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A	Secondary Indicators (2 or more required)  RA
Pepth (inches).  Permarks  Permarks  Petiand Hydrology Indicators:  rimary Indicators (minimum of one required: check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	Secondary Indicators (2 or more required)  RA
Pepth (inches).  emarks  /DROLOGY  /estiand Hydrology Indicators:  rimary Indicators (minimum of one required: check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A	Secondary Indicators (2 or more required)  RA
Pepth (inches).  emarks  /DROLOGY  /etiand Hydrology Indicators:  rimary Indicators (minimum of one required: check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  ield Observations:	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks)	Secondary Indicators (2 or more required)  RA
Pepth (inches).  Pemarks  Portional Hydrology Indicators:  Primary Indicators (minimum of one required: check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  ield Observations:  Surface Water Present?  Yes No	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	Secondary Indicators (2 or more required)  RA
Pepth (inches).  Pemarks  Portional Hydrology Indicators:  Primary Indicators (minimum of one required; check  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  ield Observations:  Furface Water Present?  Ves No No	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR / Other (Explain in Remarks)  Depth (inches):	Secondary Indicators (2 or more required)  RA
Pepth (inches).  Permarks  Proposition (Page 1)  Sediment Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Irola Observations:  Surface Water Present?  Valer Table Present?  Ves No  No  Includes capillary fringe)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C Stunted or Stressed Plants (D1) (LRR // Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)  RA
Primarks  YDROLOGY  Vettand Hydrology Indicators:  Primary Indicators (minimum of one required: check  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Valer Table Present?  Ves No  Valer Table Present?  Ves No  Valer Table Present?  Ves No  No  Valer Table Present?	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C Stunted or Stressed Plants (D1) (LRR // Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)  RA
Primarks  YDROLOGY  Vettand Hydrology Indicators: Primary Indicators (minimum of one required: check  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present? Ves No Vater Table Present? Yes No Vater Table Present? Yes No Saturation Present? Yes No Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C Stunted or Stressed Plants (D1) (LRR // Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)  RA
Pepth (inches).  Pemarks  Portional Hydrology Indicators:  Primary Indicators (minimum of one required: check  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  ield Observations: Purface Water Present? Ves No Vater Table Present? Yes No Vater Table Present? Yes No Poscribe Recorded Data (stream gauge, monitoring)	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C Stunted or Stressed Plants (D1) (LRR // Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)  RA
Per Depth (inches).  Permarks  Primary Indicators:  Primary Indicators (minimum of one required: check Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Field Observations: Surface Water Present?  Ves No	Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C Stunted or Stressed Plants (D1) (LRR // Other (Explain in Remarks)  Depth (inches): Depth (inches):	Secondary Indicators (2 or more required)  RA

WETLAND DETERMINATION DATA FORM - V	Vestern Mountains, Valleys, and Coast Region
Project/Site A2Z City/Ci	ounty PA CLAUANS ampling Date 3.18.10
Applicant/Owner MUSY 11999	State Sampling Point
Investigator(s) RMUDG Section	n. Township. Range
	relief (concave, convex, none) Slope (%) 5%.
	Long Datum
Soil Map Unit Name Clallau (12)	NWI classification NOut
Are climatic / hydrologic conditions on the site Typical for this time of year? You	
Are Vegetation Soil or Hydrology significantly disturt	
Are Vegetation Soil or Hydrology naturally problema	
SUMMARY OF FINDINGS - Attach site map showing sam	
Hydrophytic Vegetation Present? Yes No	is the Sampled Area
Hydric Soil Present? Yes No Yes No Yes No Yes Yes No Yes Yes No Yes No Yes No Yes No Yes Yes No Yes No Yes Yes No Yes No Yes Yes No Yes Yes Yes Yes No Yes	within a Wetland? Yes No X
Remarks Q 6 4 0 000 (C) M (1) 11/C	it inverted that of
John Jumin of the	and an examination
IN DEDUSCU SOUS SUCCESS.	portuo Surtifice Times
VEGETATION - Use scientific names of plants (1)	Horver of madrilety.
!	inant Indicator Dominance Test worksheet:
Tree Stratum (Plot size SPOUNGS & Cover Spec	Number of Dominant Species That Are OBL FACW, or FAC. (A)
2	Total Number of Dominant
3	Species Across All Strata (8)
= Tot	al Cover Percent of Dominant Species That Are OBL FACW, or FAC  (A/B)
Sapling/Shrub Stratum (Plot size)	Prevalence Index worksheet:
1	Total % Cover of Multiply by
3	OBL species x 1 =
4	FACW species x 2 =
5	FAC species x3=
	al Cover FACU species X4 = 100 x 4 = 100 x 5 =
Herb Stratum (Plot size)	UPL species x5 = 138 B1
PRIFORUM TOP 20)	C LAC.
P. TACEDIATA	Prevalence index = B/A =
· LEUCANTHEMUNIVULHER IC	Hydrophytic Vegetation Indicators:  Dominance Test is >50%
5 Lypnithorpic DANIMATA	Prevalence Index is ≤3 0'
Thursday I	Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
8	Welland Non-Vascular Plants
9	Problematic Hydrophytic Vegetation (Explain)
10	Indicators of hydric soil and wetland hydrology must
11 - Tol	be present, unless disturbed or problematic
Woody Vine Stratum (Plot size	a core
	Hydrophytic
2	Vegetation   Present?   Yes No
/%. Bare Ground in Herb Stratum 20	al Cover
Remarks	
Inter of Muro, and.	

SO!I			
	~	^	•

Sampling Point TAS

Depth Matrix Inches) Color (moist) %	Redox Features Color (moist) % Type Loc²	Texture Remarks
nches) Color (moist) %	Color (mois) % Type Loc	Texture Remarks
to made	<del>7.1</del>	Claudenation
10 mortion	<del></del>	- maying you
To travela	acousting at -	
710 1000000	10000 EQ1.	Clay loon
U	O	1
	,	
		** .**
		· · · · · · · · · · · · · · · · · · ·
	I=Reduced Matrix, CS=Covered or Coated Sand Gr	
ydric Soli Indicators: (Applicable to al	·	indicators for Problematic Hydric Solis <sup>3</sup> :
_ Histosol (A1)	Sandy Redox (\$5)	2 cm Muck (A10)
_ Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
_ Black Histic (A3) _ Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (except MLRA 1) Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	•
Thick Dark Surface (A12)	Redox Dark Surface (F6)	3Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (\$1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
estrictive Layer (if present):		
Type	<del></del>	\( \)
		Hydric Soll Present? Yes NoX
emarks. 'DROLOGY		
Petland Hydrology Indicators:	ed; check all that apply)	Secondary Indicators (2 or more required)
PROLOGY Petland Hydrology Indicators:		
emarks.  'DROLOGY  lettand Hydrology Indicators:  rimary Indicators (minimum of one require	ed; check all that apply)	
POROLOGY  etland Hydrology Indicators:  imary Indicators (minimum of one require  Surface Water (A1)	ed; check all that apply) Water-Stained Leaves (89) (except MLF	RA Water-Stained Leaves (B9) (MLRA 1, 2
PROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	ed; check all that apply)  Water-Stained Leaves (89) (except MLF 1, 2, 4A, and 4B) Salt Crust (811) Aquatic Invertebrates (813)	RA Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
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emarks.  DROLOGY  etland Hydrology Indicators:  imary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	ed; check all that apply)  Water-Stained Leaves (89) (except MLF  1, 2, 4A, and 4B)  Salt Crust (811)  Aquatic Invertebrates (813)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Sits (C3) Geomorphic Position (D2)
emarks.  DROLOGY  etland Hydrology Indicators:  imary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)	ed; check all that apply)  Water-Stained Leaves (B9) (except MLF  1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)
emarks.  DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require _ Surface Water (A1) _ High Water Table (A2) _ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits (B2) _ Drift Deposits (B3) _ Algel Mat or Crust (B4) _ Iron Deposits (B5)	ed; check all that apply)  — Water-Stained Leaves (B9) (except MLF  1, 2, 4A, and 4B)  — Salt Crust (B11)  — Aquatic Invertebrates (B13)  — Hydrogen Sulfide Odor (C1)  — Oxidized Rhizospheres along Living Roo  — Presence of Reduced Iron (C4)  — Recent Iron Reduction in Tilled Soils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
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emarks.  PROLOGY  etiand Hydrology Indicators:  imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface eld Observations:	ed: check all that apply)  Water-Stained Leaves (B9) (axcept MLF 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6  Stunted or Stressed Plants (D1) (LRR A  37)  Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Finited Ant Mounds (D6) (LRR A)
PROLOGY  Setiand Hydrology Indicators:  Imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface eld Observations:	ed: check all that apply)  Water-Stained Leaves (B9) (axcept MLF 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6  Stunted or Stressed Plants (D1) (LRR A  37)  Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Finited Ant Mounds (D6) (LRR A)
PROLOGY  Vetland Hydrology Indicators: rimary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface eld Observations: urface Water Present? Ves	ed: check all that apply)  Water-Stained Leaves (B9) (except MLF  1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6  Stunted or Stressed Plants (D1) (LRR A  37)  Other (Explain in Remarks)  No  Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Fig. ac Ant Mounds (D6) (LRR A)  Frost-Heave Simmocks (D7)
PROLOGY  Vetland Hydrology Indicators:  rimary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface  eld Observations:  urface Water Present?  Yes  Vater Table Present?	ed: check all that apply)  Water-Stained Leaves (B9) (except MLF  1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6  Stunted or Stressed Plants (D1) (LRR A  37)  Other (Explain in Remarks)  No  Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Finited Ant Mounds (D6) (LRR A)
PROLOGY  Settand Hydrology Indicators:  Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (85) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (Based on Serial Concave Surface eld Observations:  Surface Water Present? Saturation Present? Seturation Present?	ed: check all that apply)  Water-Stained Leaves (B9) (except MLF  1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6  Stunted or Stressed Plants (D1) (LRR A  37)  Other (Explain in Remarks)  No  Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Fine Ant Mounds (D6) (LRR A)  Frost-Heave Firmmocks (D7)  and Hydrology Present? Yes No
PROLOGY  Vetland Hydrology Indicators: rimary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface eld Observations: urface Water Present? Ves Vater Table Present?  Acturation Present?  Ves Acturation Present?	ed; check all that apply)  Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A  S7)  Other (Explain in Remarks)  (B8)  No Depth (inches):  No Depth (inches):  Wette	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Fine Ant Mounds (D6) (LRR A)  Frost-Heave Firmmocks (D7)  and Hydrology Present? Yes No
emarks.  DROLOGY  ettand Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ald Observations: urface Water Present? Yes alter Table Present? Yes sturation Present? Indudes capillary fringe) Sparcibe Recorded Data (stream gauge, m	ed; check all that apply)  Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roo  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A  S7)  Other (Explain in Remarks)  (B8)  No Depth (inches):  No Depth (inches):  Wette	Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Fined Ant Mounds (D6) (LRR A)  Frost-Heave Firmmocks (D7)  and Hydrology Present? Yes No

WETLAND DETERMINATION DATA FOR	M – Western Mou	ıntains, Valleys, and	d Coast Region
007	$\mathcal{T}$	MALLAM	Sampling Date 3.18.
MARIERO	City/County. TT	William	
17.01.105		State:	
		inge.	~ ·
Landform (hillstope, terrace, etc.):		convex, none).	
Subregion (LRR)Lat	7.11	Long:	Datum
Soil Map Unit Name	(H)	NWI classific	ation
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation Soil, or Hydrology significantly	disturbed? Are	"Normal Circumstances" p	present? Yes No K_
Are Vegetation Soil or Hydrology naturally pro	oblematic? (If no	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	sampling point (	ocations, transects	, important features, etc
1,			, , , , , , , , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? YesNo	Is the Sampled		
Hydric Soil Present? Yes No X	within a Wetla	nd? Yes	No <u></u>
Welland Hydrology Present? Yes No X	<del>_</del>		<del> </del>
Tollians.			
VEGETATION - Use scientific names of plants.		Notes	
Absolute	Dominant Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size) % Cover	Species? Status	Number of Dominant S	pecies
1		That Are OBL, FACW,	or FAC. (A)
2		Total Number of Domin	
3	<del></del>	Species Across All Stra	la (B)
4	= Total Cover	Percent of Dominant Sp	/ 1 /
Sapling/Shrub Stratum (Plot size)	_ = Total Cover	That Are OBL, FACW,	or FAC (A/B)
1		Prevalence index wor	ksheet:
2		Total % Cover of:	Multiply by
3		· —	x 1 =
4		FACW species	x2=
5	<del></del>	FAC species 10	×3 = 4000
Herb Stratum (Plot size	_ = Total Cover	7	
DAMULIS GIBMERATA 30	X FACU	UPL species	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
PLANTAGOLANCOLATA 25	X FACI	Column Tolais. 10	
3 DAUCUS CAROTOL 20	X UPL	Prevalence Index	= B/A =
4-TARAXACUM OFICIONE IC	EACU	Hydrophytic Vegetation	
5 TEIFOLIUM SOP 10	— FAC	Dominance Test is	
EUCANTHEMUM VILLERE IC	DUPL	Prevalence Index i	
7		Morphological Ada	ptations1 (Provide supporting sor on a separate sheet)
8	- <del> </del>	Wetland Non-Vasc	•
9			phytic Vegetation (Explain)
10		· —	and wetland hydrology must
11	<del></del>	be present, unless dist	
Woody Vine Stratum (Plot size)	_= Total Cover		
1		Hydrophytic	
2		Vegetation	s No 🔀
G:/	= Total Cover	Present? Ye	s NO
% Bare Ground in Herb Stratum		<u> </u>	
Remarks			

_	-	
	73	

Sampling Point:\_ 118]

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosoi (A1) Sandy Redox (S5) 2 c Histic Epipedon (A2) Stripped Matrix (S6) Re Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Back Histic (A3) Loamy Mucky Mineral (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicat Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) well Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) well Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) well Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless Restrictive Layer (If present): Type: Depth (inches):  Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Diric Deposits (B3) Diric Peposits (B3) Diric Presence of Reduced Iron (C4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Titled Solts (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Fleid Observations: Surface Water Present? Yes No Depth (inches) Open (Minches) Inches)	
Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	CI MI L DAMA
Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	CIPY WAM
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
Indicators: (Applicable to all LRRs, unless otherwise noted.)  Histosol (A1)	
Histosol (A1) Sandy Redox (S5) 2 c C Histic Epipedon (A2) Stripped Matrix (S6) Re Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Oth Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicat Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Wattrictive Layer (If present):  Type:	cation: PL=Pore Lining, M=Matrix.  ors for Problematic Hydric Solis <sup>3</sup> :
Histic Epipedon (A2)  Black Histic (A3)  Black Histic (A3)  Hydrogen Sulfide (A4)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Mucky Mineral (S1)  Sandy Gleyed Matrix (F3)  Thick Dark Surface (A12)  Redox Dark Surface (F6)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Setrictive Layer (If present):  Type:  Depth (inches):  Depth (inches):  Surface Water (A1)  High Water Table (A2)  Salt Crust (B11)  Sediment Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  eld Observations:  urface Water Present?  Yes No Depth (inches):  Wetland Hydrole  Wetland Hydrole  Wetland Inches):  Wetland Hydrole  Wetland Inches):  Wetland Hydrole	
Black Histic (A3)	m Muck (A10) I Parent Material (TF2)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F5) Indicated Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetling Sandy Mucky Mineral (S1) Redox Depressions (F8) Unlies estrictive Layer (If present):  Type: Depth (inches): Hydric Solemarks   //DROLOGY  //etland Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water Table (A2) 1, 2, 4A, and 4B) Salt Crust (B11) Salt Crust (B13) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B3) Dirit Deposits (B3) Dirit Deposits (B3) Dirit Deposits (B3) Presence of Reduced Iron (C4) If on Deposits (B5) Recent Iron Reduction in Tilled Solits (C6) Surface Soil Cracks (B6) Sturnled or Stressed Plants (D1) (LRR A) Sparsely Vegetated Concave Surface (B8)  Ield Observations:  urface Water Present? Yes No Depth (inches): Urlated Figure Matrix (F3) Wetland Hydrologolized Propositions:  urface Water Present? Yes No Depth (inches): Urlated Figure Matrix (F3) Wetland Hydrologolized Capillary (ringe)	er (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wet Sandy Gleyed Matrix (S4) Redox Depressions (F8) unle estrictive Layer (if present):  Type: Depth (inches): Hydric So emarks   //DROLOGY  /etiand Hydrology Indicators: rimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA High Water Table (A2) 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B13) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Iron Deposits (B5) Recent Iron Reduction in Titled Soilts (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Sparsely Vegetated Concave Surface (B8)  leid Observations: urface Water Present? Yes No Depth (inches): User Table Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches):	4
Thick Dark Surface (A12) Redox Dark Surface (F6) Indicat Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wet setrictive Layer (If present):  Type: Depth (inches): Hydric Soemarks  TDROLOGY  Settland Hydrology Indicators: Indicate Water (A1) Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  Salt Crust (B11) Salt Crust (B11) Salt Crust (B11) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Sulfides (B3) Sulface Nater (C4) Recent Inches (B4) Recent Inches (B4) Recent Inches (B4) Recent Inches (B4) Recent Inches (B6) Sulface Soil Cracks (B	
Sandy Mucky Mineral (S1)	ors of hydrophytic vegetation and
Satisty Geyeu Mann (A)  Type:  Depth (inches):  Depth (in	and hydrology must be present.
Type:	ss disturbed or problematic.
Depth (inches): Hydric So  Pemarks    DROLOGY	
etland Hydrology Indicators: imary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  elid Observations:  urface Water Present?  Yes No Depth (inches):	Present? Yes No X
Presence of Reduced Iron (C4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sport Sore Water Present?  Vetiand Hydrology Indicators:  (A1)  Water-Stained Leaves (B9) (except MLRA  1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Aquatic Invertebrates (B13)  Appropriate Odor (C1)  Diff Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Vater Table Present?  Yes No Depth (inches)  Vater Table Present?  Yes No Depth (inches):  Vestand Hydrology  Wetland Hydrology  Presence of Reduced Iron (C4)  Appropriate Soil Cracks (B6)  Depth (inches):  Vater Table Present?  Yes No Depth (inches):  Vettand Hydrology  Wetland Hydrology  Wetland Hydrology  Wetland Hydrology  Presence of Reduced Iron (C4)  Depth (inches):  Vater Table Present?  Yes No Depth (inches):  Vettand Hydrology  Wetland Hydrology  Wetland Hydrology  Presence of Reduced Iron (C4)  Depth (inches):  Vettand Hydrology  Wetland Hydrology  Presence of Reduced Iron (C4)  Depth (inches):  Vettand Hydrology  Wetland Hydrology  Presence of Reduced Iron (C4)  Depth (inches):  Depth (inches):  Vettand Hydrology  Wetland Hydrology  Presence of Reduced Iron (C4)  Depth (inches):  Depth (inches):  Vettand Hydrology  Presence of Reduced Iron (C4)  Presence of Red	Presentr TesNO
Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Vater Table Present?  Vater Table Present?  Ves No Depth (inches):  Water-Stained Leaves (B9) (except MLRA  1, 2, 4A, and 4B)  Salt Crust (B1)  Aquatic Invertebrates (B13)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stuntled or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)  Depth (inches):  Vater Table Present?  Ves No Depth (inches):  Octobre (Explain in Remarks)  Wetland Hydrold Concludes capillary fringe)	
High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Vater Table Present?  Vater Table Present?  Yes  No  Depth (inches):  Vater Table Present?  Yes  No  Later Ad, and 4B)  Salt Crust (B1)  Aquatic Invertebrates (B13)  Aquatic Invertebrates (B13)	andary Indicators (2 or more required)
Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Vater Table Present?  Yes No Depth (inches):  Vater Table Present?  Yes No Depth (inches):  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)  Depth (inches):  Vater Table Present?  Yes No Depth (inches):  Ves Depth (inches):  Wetland Hydrold  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Presence of Reduced Iron (C4)  Oxidized Rhizospheres along Living Roots (C3)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Oxidized Rhizospheres along Living Roots (C3)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Oxidized Rhizospheres along Living Roots (C3)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Oxidized Rhizospheres along Living Roots (C3)  Oxidized Rhizospheres along Living Roots (C3)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Oxidized Rhizospheres along Living Roots (C3)  Presence of Reduced Iron (C4)  Presence	Water-Stained Leaves (B9) (MLRA 1, 2
Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Algal Matior Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Depth (inches): Ves No Depth (inches):	4A, and 4B) Drainage Patterns (B10)
Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Ield Observations:  urface Water Present?  Vater Table Present?  Yes No Depth (inches):  Depth (inches):  Wetland Hydrold of Ct1  Depth (inches):  Depth (inches):  Wetland Hydrold of Ct2  Wetland Hydrold of Ct3  Depth (inches):  Depth (inches):  Wetland Hydrold of Ct3  Wetland Hydrold of Ct3  Depth (inches):  Depth (inches):  Wetland Hydrold of Ct3  Depth (inches):  Depth (	Drainage Falleriis (510) Dry-Season Water Table (C2)
Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Ield Observations:  urface Water Present?  /ater Table Present?  Yes No Depth (inches):  Depth (inches	Saturation Visible on Aerial Imagery (C
Algal Mat or Crust (B4) Presence of Reduced Iron (C4)  Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6)  Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A)  Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Sparsely Vegetated Concave Surface (B8)  Ield Observations:  urface Water Present? Yes No Depth (inches):  // Judge Capillary fringe)  Wetland Hydrold Concludes capillary fringe)	Geomorphic Position (D2)
Iron Deposits (B5)	Shallow Aquitard (D3)
Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Ield Observations:  urface Water Present?  VesNoDepth (inches):  atturation Present? YesNoDepth (inches):  atturation Present? YesNoDepth (inches):	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8)  Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Raised Ant Mounds (D6) (LRR A)
Sparsely Vegetated Concave Surface (B8)  leid Observations:  urface Water Present? Yes No Depth (inches):  /ater Table Present? Yes No Depth (inches):  aturation Present? Yes No Depth (inches): Wetland Hydrold (inches):	
leid Observations:  urface Water Present? Yes No Depth (inches):	Frost-Heave Hummocks (D7)
viriace Water Present?  Ves No Depth (inches):  Ves No Depth (inches):  Depth (inches):  Wetland Hydrological Present (inches):  Occludes capillary fringe)	Frost-Heave Hummocks (D7)
aturation Present? Yes No K Depth (inches): Wetland Hydrold	Frost-Heave Hummocks (D7)
aturation Present? Yes No K Depth (inches): Wetland Hydrold	Frost-Heave Hummocks (D7)
nctudes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.	gy Present? Yes No
lemarks	

## WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region Project/Site \_H/ State \_\_\_\_\_ Sampling Point Applicant/Owner Investigator(s) Section, Township, Range Landform (hillstope, terrace, \_\_\_\_ Local relief (concave, convex, none) Subregion (LRR) nahour. Soil Map Unit Name NWI classification Are climatic / hydrologic conditions on the site typical for this time of year? Yes No \_\_\_\_\_ (If no, explain in Remarks ) significantly disturbed or Hydrology Are "Normal Circumstances" present? Yes Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks VEGETATION - Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet: % Cover Species? Status Tree Stratum (Plot size \_ Number of Dominant Species That Are OBL, FACW, or FAC. Total Number of Dominant Species Across All Strata Percent of Dominant Species = Total Cover That Are OBL FACW, or FAC Sapling/Shrub Stratum (Plot size Prevalence Index worksheet Total % Cover of \_\_\_ OBL species FACW species FAC species FACU species = Total Cover Herb Stratum Column Totals Prevalence Index = 8/A = Hydrophytic Vegetation Indicators \_ Dominance Test is >50% Prevalence Index is ≤3.0° \* Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) \_\_\_ Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) 'indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Woody Vine Stratum (Plot size \_ Hydrophytic Vegetation Present? % Bare Ground in Herb Stratum Remarks

Profile Description: (Describe to the des	oth needed to document the indicator or confirm	Sampling Point: 1000
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type Loc2	Texture Remarks
<u> </u>	4	
7772 76116414 97		Malloam
~ <del>100 </del>	the state of the s	- way will
		<u>'</u>
·		<u> </u>
Tunn CaConcentration DaDenleton PM	=Reduced Matrix, CS=Covered or Coaled Sand Gri	21
lydric Soil Indicators: (Applicable to all		ains. *Location. PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solis*:
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12) Sandy Mucky Mineral (S1)	Redox Dark Surface (F6) Depleted Dark Surface (F7)	Indicators of hydrophytic vegetation and
Sandy Middly Milleral (S1) Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	wetland hydrology must be present.
testrictive Layer (If present):	The state of the s	unless disturbed or problematic.
• • •		!
Type		
Type: Depth (inches):		Hydric Soll Present? Yes No
· ————		Hydric Soll Present? Yes No
Depth (inches):  Remarks  YDROLOGY		Hydric Soll Present? Yes No
Depth (inches):  Remarks  YDROLOGY  Vetland Hydrology Indicators:		Hydric Soll Present? Yes No
Depth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require	d check all that apply)	Secondary Indicators (2 or more required)
Depth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)	d_check all (hat apply) Water-Stained Leaves (89) (except MLR	Secondary Indicators (2 or more required)  A Water-Stained Leaves (89) (MLRA 1,
Depth (inches):  Permarks  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)	d_check all (hat apply) Water-Stained Leaves (89) (except MLR 1, 2, 4A, and 48)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
Depth (inches):  Cemarks  CDROLOGY  Vetland Hydrology Indicators:  rimary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	d_check all that apply)  Water-Stained Leaves (89) (except MLR 1, 2, 4A, and 4B) Salt Crust (811)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1,
Depth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)	d_check all that apply)  Water-Stained Leaves (89) (except MLR 1, 2, 4A, and 4B)  Salt Crust (811)  Aqualic invertebrates (813)	Secondary Indicators (2 or more required)  A
Popth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Trimary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	d_check all that apply)  Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)  Salt Crust (B11)  Aqualic invertebrates (B13)  Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1,
Pepth (inches):  Permarks  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	d_check all that apply)  Water-Stained Leaves (89) (except MLR 1, 2, 4A, and 4B) Salt Crust (811) Aqualic invertebrates (813) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roof	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)
Pepth (inches):  Permarks  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)	d check all that apply)  Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roof Presence of Reduced Iron (C4)	Secondary Indicators (2 or more required)  A
Pepth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	d check all that apply)  Water-Stained Leaves (89) (except MLR 1, 2, 4A, and 4B)  Salt Crust (811)  Aquatic invertebrates (813)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roof Presence of Reduced iron (C4)  Recent Iron Reduction in Tilled Solls (C6)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Pepth (inches):  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)	d_check all that apply)  Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)  Salt Crust (B11)  Aqualic invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Root Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solis (C6)  Stunted or Stressed Plants (D1) (LRR A)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Pepth (inches):  Permarks  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)	d check all that apply)  Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)  Salt Crust (B11)  Aqualic invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roof Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Permarks  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (	d check all that apply)  Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)  Salt Crust (B11)  Aqualic invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roof Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (89) (MLRA 1, 4A, and 4B)  Drainage Patterns (810)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Pepth (inches):  Permarks  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (Ield Observations:	d check all that apply)  Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)  Salt Crust (B11)  Aqualic invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roof Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (89) (MLRA 1, 4A, and 4B)  Drainage Patterns (810)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Permarks  YDROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface (Indicate Water Present?  Yes	d_check all that apply)  Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roof Presence of Reduced from (C4)  Recent Iron Reduction in Tilled Solls (C6)  Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Secondary Indicators (2 or more required)  A Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)

No Saturation in the upper 12" Soils moist.

WETLAND DETE	RMINATION DAT	A FORM	- Western I	Mountains, Va	illeys, and (	Coast Region	
Project/Sile A37				•		ampling Date. 3	16.1
Applicant/Owner / NO	400						
investigator(s)	700					ampling Point.	<u>U_</u>
Landform (hillstope, terrace, etc.)		0	ziion. Townsnip	o, Range	<del> </del>	Slope (9	<u> </u>
Subregion (LRR) LRPA			•	•			(a)
Soil Map Unit Name	1. 1 M. O.	Lat		long		~ ~ ~	
Are climatic / hydrologic conditions on the	- Contra	<u> </u>		^	VWI classificati	on. <u>  NOU </u>	<u> </u>
			1				1.0
Are Vegetation Soil or						sent? Yes	No K
Are Vegetation				(If needed, explain			
SUMMARY OF FINDINGS - A	ttach site map s	howing sa	mpling pol	nt locations, t	transects, i	mportant featu	res, etc
Hydrophytic Vegetation Present?	Yes No	X					
Hydric Soil Present?	Yes No		is the Sam	•		No X	
Wetland Hydrology Present?	Yes No		within a W	etiano /	Y es	. No <u>~</u>	
Remarks.			<u> </u>	<del></del>		· · · · · · · · · · · · · · · · · · ·	
VEGETATION - Use scientific	names of plants						
1			ominant Indica	lor Dominance	Test worksh		
Tree Stratum (Plot size			ecies? Statu	ie Dannie	Dominant Spec		
1		<del></del>	<del></del>	T .	BL, FACW, or		_ (A)
2				Total Numb	er of Dominan	2	
3				Species Ac	ross Ali Strata		(B)
4		= 1	ntal Cover		Dominant Spec		1
Sapling/Shrub Stratum (Plot size	)		7.0, Q07c.	I hat Are Of	BL. FACW, or I	-AC	!_ (A/B)
1				Prevalence	Index works	neet:	
2			-		Cover of:		
3	_			OBL specie FACW specie	17.3	- x1= -20	<del></del>
5				FAC specie			5
			otal Cover	FACU spec	717	x4= 160	$\overline{\geq}$
Herb-Siratum (Piol size	1	دام ا	v 1500	UPL specie	s VC	2 x5 = 232	Q
- Day 10 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	910	——————————————————————————————————————		Column Tol	als	(A) 40	<u>X</u> (B)
<sup>2</sup> 1411111 4710	215		VE VE	Prevai	lence Index =	B/A = 4.0	)
1. Juisage		70	又可	<u></u>	c Vegetation		
5 HUDOUHAPUUS	VADICATA	75	TP	Domina	ance Test is >5	0%	
6 Through &	ipp	_ <i>UL</i> _	<u>— F19</u>		ence Index is s	· ·	
, VICIA HICSUTA			UP			tions" (Provide supp tion a separate shee	
8		<del></del>			d Non-Vascula	•	;()
9		<del></del>				tic Vegetation (Exp	olain)
10						nd wetland hydrolog	y must
11		TO = T	olal Cover	- be present,	unless disturb	ed or problematic.	<u></u>
Woody Vine Stratum (Plot size	)						
1				Hydrophyti		( .	
2		<del></del>		Vegetation Present?	Yes _	No <u>X_</u>	
% Bare Ground in Herb Stratum	1.	= * T	otal Cover			_•	
Remarks							

		Sampling Point
ofile Description: (Describe to the dep	oth needed to document the indicator or confirm	the absence of indicators.)
epth Matrix	Redox Features	
nches) Cotor (maist) %	Color (moist) % Type Loc2	Texture Remarks
<del></del>	18777 - 1	A A CONTRACTOR
1/2 1/1/14/414	1014K 27 P - 1.1.	CHUHU WATI
	() =(= : :: :	V
-		
C. Communication De Docision PA	I=Reduced Matrix, CS=Covered or Coated Sand Gr	sins. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
ype: C=Concentration, D=Deptation, New York Soil Indicators: (Applicable to al	I LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solls':
Histosof (A1)	Sandy Redox (\$5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
_ Thick Dark Surface (A12)	Redox Dark Surface (F6)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)	wetland hydrology must be present. unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Redox Depressions (F6)	unless disturbed or problematic.
estrictive Layer (if present):		
Type:	<del></del>	Hydric Soil Present? Yes No X
Depth (inches).		Hydric Soil Present? Yes No
emarks		
DROLOGY		
DROLOGY etland Hydrology Indicators:		Secondary Indicators (2 or more required)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one require		Secondary Indicators (2 or more required)
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1)	Water-Stained Leaves (B9) (except MLI	RA Water-Stained Leaves (B9) (MLRA 1,
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B)	RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B) Sait Crust (B11)	RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Orainage Patterns (B10)
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (81)	<ul> <li>Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> </ul>	RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	<ul> <li>Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> </ul>	RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roc	RA Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Cas) Geomorphic Position (D2)
etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roce Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Ca) Geomorphic Position (D2) Sfiallow Aquitard (D3)
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roce Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Cas (C3) Geomorphic Position (D2) Sfiallow Aquitard (D3) FAC-Neutral Test (D5)
etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roce Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solls (C6) Stunted or Stressed Plants (D1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Ca)  Dis (C3)  Geomorphic Position (D2)  Sfiallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
DROLOGY  etland Hydrology Indicators: imary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roce Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solis (C6) Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Cots (C3) Geomorphic Position (D2) Sfiallow Aquitard (D3) FAC-Neutral Test (D5)
etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roce Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Solis (C6) Stunted or Stressed Plants (D1) (LRR A)  Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Ca)  Dis (C3)  Geomorphic Position (D2)  Sfiallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface eld Observations:	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roc Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solls (C6  Stunted or Stressed Plants (D1) (LRR A  B7)  Other (Explain in Remarks)  (B8)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Ca)  Dis (C3)  Geomorphic Position (D2)  Sfiallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface eld Observations: urface Water Present? Yes	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roc  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6  Stunted or Stressed Plants (D1) (LRR A  B7)  Other (Explain in Remarks)  (B8)	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Ca)  Dis (C3)  Geomorphic Position (D2)  Sfiallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
etland Hydrology Indicators: imary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery ( Sparsely Vegetated Concave Surface eld Observations:	Water-Stained Leaves (B9) (except MLI 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Roc  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C6  Stunted or Stressed Plants (D1) (LRR A  B7)  Other (Explain in Remarks)  (B8)  No  Depth (inches):  Depth (inches):	Water-Stained Leaves (B9) (MLRA 1, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (Cons (C3)  Geomorphic Position (D2)  Sfiallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)

WETLAND DETERMINATION D	ATA FORM	l – Western Mou	ருtains, Valleys, and Coast Region
Project/Site: HAZ	c	ity/County.	CAUAM Sampling Date 3.18.
Applicant/Owner. MOUU 500			State Sampling Point TB4
Investigator(s)	S	ection, Township Ra	inge.
Landform (hillstope, terrace, etc.)			convex, none) Slope (%)
Subregion (LRR). LRRA	Lat		Long: Datum.
√/= f \ f \	De MA	X 1 1	
Are climatic / hydrologic conditions on the site typical for the		· • •	NWI classification(If no. explain in Remarks.)
Are Vegetation Soil or Hydrology			Normal Circumstances' present? Yes No \(\frac{\text{V}}{}
Are Vegetation Soil or Hydrology			eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map			
SOMMARY OF FINDINGS - ALECTISTE TIEF		sampling point is	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	•	is the Sampled	Area
Hydric Soil Present? Yes	\ /	within a Wetlar	\_
Welland Hydrology Present? Yes	NoX		
Remarks.			
VEGETATION – Use scientific names of pla			
VEGETATION - Ose scientific flames of pla		Saniani Takara	Particular
Tree Stratum (Plot size)		Dominant Indicator Species? Status	Dominance Test worksheet:
1			Number of Dominant Species That Are OBL, FACW, or FAC. (A)
2	<del></del>		Total Number of Dominant
3		<del></del>	Species Across All Strata (B)
4		Total Caver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size)		Total Cover	That Are OBL FACW, or FAC:(A/B)
1			Prevalence Index worksheet:
2			Total % Cover of Multiply by
3			OBL species x 1 =
4		<del></del>	FACW species 2 x 2 = 10
5	<del></del>		FAC species $\omega$ x 3 = $10$
Herb Stratum (Plot size)	=	Total Cover	FACU species 60 x4 = 340  UPL species 21 x5 = 105
DAMUSALOMERATA	40	X FACU	UPL species $\frac{1}{92}$ (A) $\frac{1}{373}$ (B)
2 DAYCUS CAROTTA	20	X UPL	
3 Parinculus Spp.	5	Facu	Prevalence Index = B/A = 4.0
1 HUPOCHARIUS RADICA	[H_5]	EAC	Hydrophytic Vegetation Indicators:
The XACUM OFFICIONALE	ـ ـ ـ كِيا ـ	+ACU	Dominance Test is >50%
6 YUN NAGO INCEOLATA	_ 卆 -	taru	Prevalence Index is \$3.0'
7 HICIA HICSUID		<u>yr</u>	Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)
8 POTUCH FUBER		1170	Welland Non-Vascular Plants
9	<del>-</del>	<del></del>	Problematic Hydrophytic Vegetation (Explain)
10			Indicators of hydric soil and wetland hydrology must
11	92	Total Cover	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size)	— <b>*</b>		
1			Hydrophytic
2			Vegetation Present? Yes No X
N. Barr Carried in Heath Circles	=		
% Bare Ground in Herb Stratum			<u> </u>

OIL								Sampling	Point: 1	BH
Profile Description: (Describe to	the depth ne	eded to docum	ent the indi	cator o	r confirm t	he absence	of indi	cators.)		
Depth Matrix			K Features							
(inches) Color (moist)	% C	olor (moist)		уре	Loc²	Texture		Rer	narks	
0-13 IWA313	100 T.				<del></del> -	UA	<del>-</del>	LOAN	<u> </u>	
713" IUUASIA	1001	syptole	401	·			<u>-(</u>	baut	CLA	1
<del></del>						. 2.		<u> </u>		4-4
Type: C=Concentration, D=Deptet	lion, RM=Redi	uced Matrix, CS	=Covered or	Coated	s Sand Gra			PL=Pore L Problemati		
Hydric Soil Indicators: (Applicat				,					o riyuric	
Histosof (A1)		Sandy Redox (S					m Muck	(A10) i Material (1	E21	
Histic Epipedon (A2)		Stripped Matrix Loamy Mucky M		evcent	MI DA 11			lain in Rem		
Black Histic (A3) Hydrogen Sulfide (A4)		Loamy Gleyed I	· · · · · · · · · · · · · · · · · · ·	avcahı	MILITAN I /	0"	161 (Exp	an nerven	ains!	
Depleted Below Dark Surface (		Depleted Matrix								
Thick Dark Surface (A12)		Redox Dark Su	• •			3Indical	ors of h	drophytic v	egetation	and
Sandy Mucky Mineral (S1)		Depleted Dark S	Surface (F7)			weti	and hyd	rology must	be prese	nt.
Sandy Gleyed Matrix (S4)		Redox Depress	ions (F8)			unie	ss distu	bed or prol	olematic.	
Restrictive Layer (If present):  Type:  Death (inches):						Hydric So	l Prese	nt? Yes		No <u>k</u>
_						Hydric So	i Prese	nt? Yes		No &
Type: Depth (inches):						Hydric So	il Prese	nt? Yes		No <u>k</u>
Type: Depth (inches): Remarks						Hydric So	il Prese	nt? Yes		No <u>k</u>
Type Depth (inches): Remarks		eck all that appl	γ)					nt? Yes	or more	No k
Type			Y)	(B9) (a)	xcept MLR	Sec	ondary J			
Type		Water-Sta		(B9) (e)	xcept MLR	Sec	ondary i Water-S	ndicators (2 tained Lear	ves (B9) (I	
Type		Water-Sta	ined Leaves ( N, and 4B)	(B9) (e)	scept MLR	Sec	ondary i Water-S	ndicators (2 tained Lear	ves (B9) (I	
Type		Water-State 1, 2, 44 Salt Crust	ined Leaves ( N, and 4B)		xcept MLR	<u>Sec</u>	ondary I Water-S 4A, i Orainag	ndicators (2 tained Lear	ves (B9) (I (B10)	MLRA 1,
Type		Water-State 1, 2, 4A Salt Crust Aquatic In-	ined Leaves ( A, and 4B) (B11)	B13)	xcept MLR	Sec.	ondary I Water-S 4A, i Drainag Dry-Sea	ndicators (2 tained Lea ind 4B) e Patterns	ves (B9) (l (B10) Table (C2	MLRA 1,
Type		Water-Stai 1, 2, 4A Salt Crust Aquatic Ini Hydrogen	ined Leaves ( A, and 4B) (B11) vertebrates (I	B13) (C1)		Sec.	ondary I Water-S 4A, i Orainag Ory-Sea Saturati	ndicators (2 tained Lear and 4B) a Patterns son Water	ves (B9) (l (B10) Table (C2 on Aerial II	MLRA 1,
Type		Water-Stai  1, 2, 4A  Salt Crust  Aquatic Inc  Hydrogen  Oxidized F	ined Leaves ( A, and 4B) (B11) vertebrates (I Sulfide Odor	813) (C1) salong (	Living Root	Sec.	ondary i Water-S 4A, i Drainag Dry-Sea Saturati Geomo	ndicators (2 tained Lear and 4B) a Patterns son Water on Visible c	ves (B9) (l (B10) Table (C2 on Aerial II on (D2)	MLRA 1,
Type		Water-Stai 1, 2, 4A Salt Crust Aquatic Ini Hydrogen Oxidized F Presence	ined Leaves ( A, and 4B) (B11) vertebrates (I Sulfide Odor Rhizospheres	813) (C1) s along l iron (C4	Living Root	Sec. A	ondary i Water-S 4A, i Drainag Dry-Sea Saturati Geomo Shallow	ndicators (2 tained Lear and 48) a Patterns of son Water on Visible of phic Positio	ves (B9) (I (B10) Table (C2 on Aerial II on (D2) D3)	MLRA 1,
Type		Water-Stai 1, 2, 4A Salt Crust Aquatic Ini Hydrogen Oxidized F Presence Recent Iro	ined Leaves ( A, and 4B) (B11) vertebrates (I Sulfide Odor Rhizospheres of Reduced I	813) (C1) salong l fron (C4 in Tilled	Living Root ) ) d Solls (C8)	Sec. A	ondary I Water-S 4A, i Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised	ndicators (2 tained Lear ind 48) a Patterns i son Water on Visible o phic Positio Aquitard (1 utral Test (	(B10) Table (C2) on Aerial II on (D2) D3) D5) s (D6) (LR	MLRA 1, magery (C
Type	e required; che	Water-Stail 1, 2, 4A Salt Crust Aquatic Ini Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaves (A., and 4B) (B11) vertebrates (I Sulfide Odor Rhizospheres of Reduced ion Reduction	B13) (C1) salong lifon (C4 in Tilled	Living Root ) ) d Solls (C8)	Sec. A	ondary I Water-S 4A, i Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised	ndicators (2 tained Lear and 48) a Patterns i son Water on Visible o phic Positio Aquitard ((	(B10) Table (C2) on Aerial II on (D2) D3) D5) s (D6) (LR	MLRA 1, magery (C
Type	e required; che	Water-Stail 1, 2, 4A Salt Crust Aquatic Ini Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaves ( A, and 4B) (B11) vertebrates (I Sulfide Odor Rhizospheres of Reduced in Reduction Stressed Pla	B13) (C1) salong lifon (C4 in Tilled	Living Root ) ) d Solls (C8)	Sec. A	ondary I Water-S 4A, i Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised	ndicators (2 tained Lear ind 48) a Patterns i son Water on Visible o phic Positio Aquitard (1 utral Test (	(B10) Table (C2) on Aerial II on (D2) D3) D5) s (D6) (LR	MLRA 1, magery (C
Type	e required; che	Water-Stail 1, 2, 4A Salt Crust Aquatic Ini Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaves ( A, and 4B) (B11) vertebrates (I Sulfide Odor Rhizospheres of Reduced in Reduction Stressed Pla	B13) (C1) salong lifon (C4 in Tilled	Living Root ) ) d Solls (C8)	Sec. A	ondary I Water-S 4A, i Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised	ndicators (2 tained Lear ind 48) a Patterns i son Water on Visible o phic Positio Aquitard (1 utral Test (	(B10) Table (C2) on Aerial II on (D2) D3) D5) s (D6) (LR	MLRA 1, magery (C
Type Depth (inches):  Remarks  AYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeriat Im Sparsely Vegetated Concave S  Field Observations:	e required; che	Water-Stai  1, 2, 4A  Salt Crust  Aquatic In: Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaves ( A, and 4B) (B11) vertebrates (I Sulfide Odor Rhizospheres of Reduced in Reduction Stressed Pla	B13) (C1) salong lifton (C4 in Tillec ants (D)	Living Root i) i) Solis (C6) 1) (LRR A)	Sec. A	ondary I Water-S 4A, i Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised	ndicators (2 tained Lear ind 48) a Patterns i son Water on Visible o phic Positio Aquitard (1 utral Test (	(B10) Table (C2) on Aerial II on (D2) D3) D5) s (D6) (LR	MLRA 1, magery (C
Type	e required; che agery (B7) Surface (B8)	Water-Stai  1, 2, 4A  Salt Crust  Aqualic Ini  Hydrogen  Oxidized F  Presence  Recent Iro  Stunted or  Other (Exp	ined Leaves (A, and 4B) (B11) vertebrates (I Sulfide Odor Rhizospheres of Reduced in Reduction Stressed Plain in Remains	B13) (C1) salong I fron (C4 in Tillec ants (D arks)	Living Root i) d Solis (C8) 1) (LRR A)	Sec. A	ondary I Water-S 4A, i Drainag Dry-Sea Saturati Geomo Shallow FAC-Ne Raised	ndicators (2 tained Lear ind 48) a Patterns i son Water on Visible o phic Positio Aquitard (1 utral Test (	(B10) Table (C2) on Aerial II on (D2) D3) D5) s (D6) (LR	MLRA 1, magery (C

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available.

Remarks

## WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region allau Sampling Date 2 City/County. Project/Site State Sampling Point. Applicant/Owner Section, Township, Range Local relief (concave, convex, none) \_\_\_\_\_\_ Slope (%) Landform (hillslope, terrace, \_\_\_\_ Long. \_\_\_\_\_ Subregion (LRR) NWI classification Are climatic / hydrologic conditions on the site typical for this time of year? Yes No \_\_\_\_\_ (If no, explain in Remarks ) Are Vegetation \_\_\_\_\_. Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? is the Sampled Area No \_\_\_ Hydric Soil Present? within a Wetland? Welland Hydrology Present? Remarks. VEGETATION – Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator % Cover Species? Status Tree Stratum (Plot size \_ Number of Dominant Species That Are OBL, FACW, or FAC Total Number of Dominant Species Across All Strata Percent of Dominant Species = Total Cover That Are OBL FACW, or FAC Sapling/Shrub Stratum (Plot size \_\_\_\_\_) Prevalence index worksheet: Total % Cover of Multiply by OBL species FACW species FAC species = Total Cover FACU species x 4 = ...\_\_\_\_ UPL species x 5 = \_\_\_\_\_ Column Totals Prevalence Index = B/A = \_\_\_ Hydrophytic Vegetation Indicators: \_\_ Dominance Test is >50% Prevalence Index is \$3.0° - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Wetland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Total Cover Woody Vine Stratum (Plot size Hydrophytic Vegetation Present? \_= Total Cover Remarks

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Sampling Point:

Depth Matrix (inches) Color (moist) %	Baday Faatusaa	
	Redox Features Color (moist) % Type Loc²	
,	TOO THOUSE COL	
117167/2-	Indepto Tot	MALLOA
U TO TOOK IST'S	1006 1100 -100	llay loam
77 700777	01 Wash	- <del> </del>
LI WHOLED	<u> </u>	- to clay
	<u> </u>	
		<del> </del>
le a a a a a a a a a a a a a a a a a a a		- <del> </del>
Type: C=Concentration, D=Depletion, RN Hydric Soil Indicators: (Applicable to a	M=Reduced Matrix, CS=Covered or Coated Sand	
Histosol (A1)		Indicators for Problematic Hydric Solis <sup>3</sup> :
Histic Epipedon (A2)	Sandy Redox (S5) Stripped Matrix (S6)	2 cm Muck (A10)
Black Histic (A3)	Losmy Mucky Mineral (F1) (except MLRA	Red Parent Material (TF2)  1) Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	-, Outer (Explain in Namarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	•
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Type:	<del></del>	V
Depth (inches).		Hydric Soil Present? Yes X No
YDROLOGY		
Wetland Hydrology Indicators:	ed, check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)  LRA Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one require	ed, check all that apply) Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)	LRA Water-Stained Leaves (B9) (MLRA 1, 2,
Netland Hydrology Indicators:  -rimary Indicators (minimum of one require  Surface Water (A1)	Water-Stained Leaves (B9) (except M	
Netland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Netland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Represence of Reduced Iron (C4)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Represence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C4) Stunted or Stressed Plants (D1) (LRR)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B) Sparsely Vegetated Concave Surface	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 67) Other (Explain in Remarks)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface Field Observations: Surface Water Present?  Yes	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  No Depth (inches).	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mai or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B)  Sparsely Vegetated Concave Surface Field Observations:  Surface Water Present?  Ves  Water Table Present?	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 37) Other (Explain in Remarks) (B8)  No Depth (inches):	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Ves Water Table Present? Ves Saturation Present?	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 37) Other (Explain in Remarks) (B8)  No Depth (inches):	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mai or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Ves Vater Table Present? Ves Saturation Present? Ves Saturation Present? Ves Saturation Present?	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR 37) Other (Explain in Remarks) (B8)  No Depth (inches):	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Shallow Aquitard (D3) Shallow Aquitard (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mai or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Because Vegetated Concave Surface Field Observations:  Surface Water Present?  Water Table Present?  Yes  Water Table Present?  Saturation Present?  (includes capillary fringe)  Describe Recorded Data (stream gauge, minuser)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  No Depth (inches):  No Depth (inches):  We	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mai or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface Field Observations:  Surface Water Present?  Water Table Present?  Yes  Saturation Present?  Yes  Saturation Present?  Yes  Saturation Present?	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  No Depth (inches):  No Depth (inches):  We	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one require  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mai or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B  Sparsely Vegetated Concave Surface Field Observations: Surface Water Present?  Ves  Water Table Present?  Yes  Saturation Present?  Yes  Saturation Present?  Yes  Saturation Present?  Secribe Recorded Data (stream gauge, m.)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  No Depth (inches):  No Depth (inches):  We	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mai or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (Based of Concave Surface Soil Cracks (B6)  Incomparison (Based of Concave Surface Sourface Water Present? Yes Water Table Present? Yes Saturation Present? Yes includes capillary fringe)	Water-Stained Leaves (B9) (except M 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Re Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  No Depth (inches):  No Depth (inches):  We	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) oots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) C6) FAC-Neutral Test (D5) A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

WEILAND DETERMINATION DATA FOI	KM – Western Mountains, Valleys, and Coast Region
Project/Site H24	City/County. Calloun Sampling Date 3.18.10
Applicant/Owner. MOVIII	State Sampling Point
Investigator(s)	Section, Township, Range
1	Local relief (concave, convex, none) Slope (%)
Subregion (LRR). Lat _	
Soil Map Unit Name Callount	NWI classification.
Are climatic / hydrologic conditions on the site typical for this time of y	1/
Are Vegetation Soil or Hydrology significant	(All of the state
Are Vegelation Soil or Hydrology naturally p	
	oroblematic? (If needed, explain any answers in Remarks.)  Ig sampling point locations, transects, important features, etc.
/	
Hydrophytic Vegetation Present?         Yes         No           Hydric Soil Present?         Yes         No	is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes Yes No
	- THISPOOH TE & SOUS AND
REMARKS LOT BHROWN MAKOSET	Mypropriors & asias na
Wood. Standing the	UAS MOR OF THE BIAS TOWARD
VEGETATION - Use scientific names of plants.	JETTAND.
Absolute	
Tree Stratum (Plot size) % Cove	Species? Status Number of Dominant Species
2	That Are OBL, FACW, or FAC (A)
3	Total Number of Dominarit
4	(5/
Sapling/Shrub Stratum (Plot size)	Percent of Dominant Species That Are OBL, FACW, or FAC
1	Prevalence Index worksheet:
2	Total % Cover of Multiply by:
3	OBL species x 1 =
4	x 2 =
5	FAC species x 3 =
Herb Stratum (Plot size)	= Total Cover
Daloura tec 25	UPL species x5 =
2 JAHUNCULUS 500 20	Column Totals (A) (B)
Thefolyam 5pb. 10	FQC Prevalence Index = 8/A =
· V. Hirauta 10	Hydrophytic Vegetation Indicators:
5 H. cadicate	Dominance Test is >50%
6 D. Carote.	Prevalence Index is \$3.0'
7 L VUIGUU	Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
9	Wetland Non-Vascular Plants
10	Problematic Hydrophytic Vegetation (Explain)
11	'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size)	_= Total Cover
WOODY VIIIe Stratum (Flot size	Hydrophytic
2	Vegetation
2n:/	= Total Cover Present? Yes No No No
% Bare Ground in Herb Stratum 607.	
Remarks DIPOCTU OUTSIDE. PIC	Trustere. There is no
SARDING HO : Dala	minerata Inses dans more
CII VIA	man was cuttured
US Abolitation Embly for DES Still	PCMC. Western Mountains, Valleys, and Coast – Interim Version
	-

SOIL		Sampling Point: TB6
	needed to document the indicator or confirm	
•	Redox Features	tris absence of mulcators.;
Depth Matrix (inches) Color (moist) %	Color (moist) % Type Loc2	Texture Remarks
0-10" 104203 1	JUPH 10 77	CUAY WAM
710" TOYPOZ TO:	Toussie 40t	THE CLAY
'Type: C=Concentration, D=Depletion, RM=R Hydric Soil Indicators: (Applicable to all Li		Indicators for Problematic Hydric Solls':
Histosol (A1)	Sandy Redox (S5) Stripped Matrix (S6)	2 cm Muck (A10) Red Parent Material (TF2)
Histic Epipedon (A2) Black Histic (A3)	Sinpped Mainx (30) Loamy Mucky Mineral (F1) (except MLRA 1)	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	•
Thick Dark Surface (A12)	Redox Dark Surface (F6)	Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	_ Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (If present):		
Туре:	- <del>-</del>	<b>V</b>
Depth (inches).	_	Hydric Soll Present? Yes No
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required:	check all that anniv)	Secondary Indicators (2 or more required)
	Water-Stained Leaves (B9) (except ML	
Surface Water (A1) High Water Table (A2)	1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (81)	Aquatic invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres along Living Ro	ots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Iron Deposits (85)	Recent Iron Reduction in Tilled Soils (C	
Surface Soil Cracks (86)	Stunted or Stressed Plants (D1) (LRR A	A) Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B		
Field Observations:	e ll	
Surface Water Present? Yes X N	o Depth (inches)	
	o Depth (inches):	1.4
Saturation Present? Yes N	o Depth (inches): Wet	land Hydrology Present? Yes No
(includes capillary fringe)  Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos, previous inspections)	, if available
	1	
REMINICE AS OF STAND	ING KAO no veg. 1	17-13 15 Just A
REMINICIAS OF STAND	THE HOLD NO VEG. T	1743 15 Just A G 120. 13 HO 1844 Juminacks & CHAMELS

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region State. \_\_\_\_\_ Sampling Point. Applicant/Owner. \_ Section, Township, Range. \_ Investigator(s) \_\_\_ Local relief (concave, convex, none): Landform (hillstope, terrace, etc.) \_\_\_\_\_ Long: \_ Datum Subregion (LRR) NWI classification. 1004 Soil Map Unit Name (If no, explain in Remarks.) Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_ (If needed, explain any answers in Remarks.) Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks. VEGETATION - Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator % Cover Species? Status Number of Dominant Species Tree Stratum (Plot size \_\_\_\_\_ That Are OBL FACW, or FAC. Total Number of Dominant Species Across All Strata Percent of Dominant Species \_\_\_ = Total Cover That Are OBL, FACW, or FAC Sapling/Shrub Stratum (Plot size Prevalence index worksheet: Total % Cover of Multiply by OBL species **FACW species** FAC species FACU species = Total Cover UPL species Herb Stratum (Piol size Column Totals Prevalence Index = B/A = Hydrophytic Vegetation Indicators: Dominance Test is >50% Prevalence Index is ≤3 0 Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Welland Non-Vascular Plants Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. ) = Total Cover Woody Vine Stratum (Plot size \_\_\_\_ Hydrophytic Vegetation Present? = Total Cover % Bare Ground in Herb Stratum Remarks

ofile Description: (Describe to epthMatrix	the depth needed to document the indicator or con Redox Features		
nches) Color (moist)	% Cotor (maist) % Type Loc	* Texture	Remarks
			MALLON
)·13 — MADAS			- WHY WHIT
रार्य गणावस्त्र	101 NO POL	<del></del>	
UZ MARIO	- (T) (2) (T) - 70:1		
	- Maryon -		- <del> </del>
<del></del>			
		<del></del>	
	<u> </u>	<del></del>	_ <del> </del>
ype: C=Concentration, D=Deplet	ion, RM=Reduced Matrix, CS=Covered or Coated Sar	d Grains. 2	Location: PL=Pore Lining, M=Matrix.  ators for Problematic Hydric Solis <sup>3</sup> :
	le to all LRRs, unless otherwise noted.)		cm Muck (A10)
_ Histosol (A1) Histic Epipedon (A2)	Sandy Redox (S5) Stripped Matrix (S6)		ted Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLR		Other (Explain in Remarks)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		•
Depleted Below Dark Surface (		,	•
_ Thick Dark Surface (A12)	Redox Dark Surface (F6)		ators of hydrophytic vegetation and
_ Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7) Redox Depressions (F8)		atland hydrology must be present.
_ Sandy Gleyed Matrix (S4) estrictive Layer (if present):	Redox Depressions (Fo)		ness distalbed of productions.
Type			,
Type.		l	ioll Present? Yes NoX_
Donth (inches)		Hydric 8	
Depth (inches)emarks.		Hydric 8	
emarks.			econdary Indicators (2 or more required)
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PROLOGY  Fetland Hydrology Indicators:  rimary Indicators (minimum of one  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)	<ul> <li>Water-Stained Leaves (B9) (axcep</li> <li>1, 2, 4A, and 4B)</li> <li>Sait Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> </ul>	1 MLRA	econdary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C
PROLOGY  Vetland Hydrology Indicators: rimary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	<ul> <li>Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B)</li> <li>Satt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Livin</li> </ul>	Set MLRA	Water-Stained Leaves (89) (MLRA 1, 2 4A, and 4B) Drainage Patterns (810) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C6) Geomorphic Position (D2)
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